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## Property/Casualty Insurance at a Glance

The property/casualty insurance business early in 1987 comprised almost 3,600 individual companies which operate in a highly competitive environment. Although about 900 of those companies write most of the business, no single company or group has more than 10 percent of the market.

In 1986, property/casualty insurance companies employed some 501,300 persons, according to government statistics. An additional 580,700 persons were engaged in agency or brokerage operations and insurance service organizations on behalf of the insurance industry as a whole, including the property/casualty, life and accident and health segments.

### Operating Results, Property/Casualty Insurers, 1984-1986 (000 omitted from dollar figures)

| | 1986 | 1985 | 1984 | % Change 1985-86 | % Change 1984-85 |
|---|---|---|---|---|---|
| Assets | $374,088,083 | $311,364,665 | $264,734,722 | + 20.1% | + 17.6% |
| Net Premiums Written | 176,552,070 | 144,186,420 | 118,166,311 | + 22.4 | + 22.0 |
| Premiums Earned | 166,381,186 | 133,341,852 | 115,009,836 | + 24.8 | + 15.9 |
| Losses and Adjustment Expenses Incurred | 135,765,622 | 118,572,435 | 101,445,723 | + 14.5 | + 16.9 |
| Loss and Loss Adjustment Ratio | 81.60% | 88.92% | 88.21% | – 8.2 | + 0.8 |
| Underwriting Expenses Incurred | 44,542,343 | 37,585,418 | 33,184,338 | + 18.5 | + 13.3 |
| Underwriting Expense Ratio | 25.23% | 25.95% | 27.98% | – 2.8 | – 7.3 |
| Combined Ratio (before Dividends to Policyholders) | 106.83% | 114.87% | 116.19% | – 7.0 | – 1.1 |
| Combined Ratio (after Dividends to Policyholders) | 108.13% | 116.52% | 118.01% | – 7.2 | – 1.3 |
| Statutory Underwriting Gain (Loss) | (13,747,925) | (22,597,292) | (19,378,885) | – 39.2 | + 16.6 |
| Dividends to Policyholders | 2,164,969 | 2,196,247 | 2,098,062 | – 1.4 | + 4.7 |
| Net Underwriting Gain (Loss) | (15,912,894) | (24,793,539) | (21,476,947) | – 35.8 | + 15.4 |
| Net Investment Income | 21,924,445 | 19,507,869 | 17,659,729 | + 12.4 | + 10.5 |
| Operating Earnings after Taxes | 6,610,383 | (3,327,453) | (2,150,139) | – 298.6 | + 54.8 |
| Policyholders' Surplus | 94,288,390 | 75,511,417 | 63,809,497 | + 24.9 | + 18.3 |
| Premium to Surplus Ratio | 1.87 to 1 | 1.91 to 1 | 1.85 to 1 | | |
| Dividends to Stockholders | 2,806,818 | 2,723,108 | 2,342,572 | + 3.1 | + 16.2 |

Source: A.M. Best Company, Inc., Best's Aggregates & Averages

Insurance Facts

# 1987-88 Property/ Casualty Fact Book

Insurance
Information
Institute

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New York, N.Y. 10038
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This yearbook is intended to provide some basic facts relating to the property and casualty insurance business for editors, writers, speakers, teachers, students, insurance people and others.

Insurance Facts is published annually by the Insurance Information Institute, an educational, fact-finding and communications organization for the property and casualty insurance business. The Institute is supported by some 300 insurance companies, both stock and mutual, and also provides public relations services to other organizations in the fields of property, liability, fidelity, surety and marine insurance.

The cooperation of other insurance organizations, government agencies and commercial publishers of insurance data has helped to make this yearbook possible. We are particularly grateful to A.M. Best Company, Inc., for making available some of its compilations of insurance statistics; to the National Fire Protection Association for permitting us to publish certain of its copyrighted data concerning fire losses, to the National Safety Council for its cooperation in providing certain accident-related data, and to the Insurance Institute for Highway Safety and the Highway Loss Data Institute for their assistance in preparing automobile data.

Mechlin D. Moore, President
Insurance Information Institute

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## Contents


**1 Scope of the Business**

Overview of Insurance ..... 5
Property/Casualty Insurance in 1986-1987: A Review ..... 6
Property/Casualty Insurance Companies by State ..... 11
Employment in Insurance ..... 12
Ownership of Insurance ..... 13
The World Insurance Market ..... 14

**2 Dollars and Cents of the Business**

Net Premiums Written by Line ..... 16
Assets and Policyholders' Surplus ..... 17
Where the Premium Dollar Goes ..... 18
Operating Results, Property/Casualty Insurers ..... 19
Profitability, Insurance and Other Industries ..... 22
Investments of Property/Casualty Insurers ..... 23
Net Premiums Written, 1977-1986 ..... 24
Who Pays the Premium Dollar? ..... 24
Automobile Insurance ..... 25
Fire Insurance and Allied Lines ..... 26
Multiple Peril Insurance ..... 27
Crop-Hail Insurance ..... 28
General Liability Insurance ..... 29
Workers' Compensation Insurance ..... 30
Surety and Fidelity ..... 31
Burglary and Theft Insurance ..... 31
Boiler and Machinery Insurance ..... 32
Glass Insurance ..... 32
Inland Marine Insurance ..... 33
Ocean Marine Insurance ..... 33
Nuclear Insurance ..... 34
Direct Written Premiums by State ..... 35
Premium Taxes ..... 40
Insurance Guaranty Funds ..... 41

**3 Shared Markets**

The Automobile Shared Market ..... 42
Insurance through FAIR and Windstorm Plans ..... 44

**4 Government Insurance Programs**

Flood Insurance in the United States ..... 46
Federal Crime Insurance ..... 48

**5 Factors Affecting Costs**

Trends in Costs of Goods, Services and Insurance ..... 49
Personal Injury Lawsuits ..... 51
Medical Malpractice ..... 53
The Civil Justice System ..... 55
Health Care Costs ..... 62

## 6 Losses by Category


Fire Losses ..... 63
Fire Fatalities ..... 63
Leading Causes of Fires ..... 64
Arson ..... 65
Structural Fires ..... 66
Multiple-Death Fires ..... 67
Large-Loss Fires ..... 68
Civil Disorders ..... 69
The Catastrophe Record, 1986 ..... 70
Earthquakes in the United States ..... 72
Hurricanes Reaching the United States ..... 73
Tornadoes in the United States ..... 74
Motor Vehicle Accidents ..... 75
Sex of Drivers ..... 77
Types and Locations of Auto Accidents ..... 77
Claim Costs, Auto Accidents ..... 78
The Drinking Driver ..... 79
Accidental Deaths ..... 82
Deaths in Home Accidents ..... 82
Accidents by Age of Drivers ..... 83
Automobile Repair Costs ..... 83
Low-Speed Crash Tests ..... 84
Auto Collision Insurance Claims ..... 86
Automobile Personal Injury Insurance Claims, Passenger Cars ..... 88
Insured Automobile Theft Losses ..... 90
Accidents at Work ..... 92
Occupational Disease ..... 93
Crimes against Property ..... 96
Motor Vehicle Thefts ..... 97
Arrests by Age Group ..... 98
Aircraft Accidents ..... 99
Business Failure Trends ..... 100
Health Insurance Benefits ..... 101


## 7 Laws Affecting Motorists


Automobile Financial Responsibility and Compulsory Laws ... 103
"No-Fault" Automobile Insurance ..... 105


## 8 General Information


The Regulation of Insurance ..... 106
Definitions ..... 109
Insurance and Service Organizations ..... 114
Member Companies and Groups, Insurance Information Institute ..... 119

Index ..... 122

# 1. Scope of the Business

## An Overview of Insurance

The business of insurance in the United States is divided into three broad categories: life insurance, health insurance and property and casualty insurance. Altogether it provides nearly 2 million jobs and has responsibility for assets which at the end of 1986 totaled more than $1.3 trillion. But its greatest significance in the American economy is as an absorber of personal and business risks.

The property and casualty segment of the insurance business is responsible for assets which at the close of 1986 totaled about $374 billion. It provides hundreds of forms of financial protection against virtually every known peril.

Data compiled by the U.S. Bureau of Labor Statistics (BLS) show that property and casualty insurance companies employed some 501,300 persons in 1986. BLS estimates that another 580,700 persons were engaged in agency or brokerage operations and insurance service organizations, but does not distinguish between personnel employed in the life insurance or health insurance business and those with responsibilities in the property and casualty field.

As of early 1987, there were about 5,800 insurance companies based in the United States and operating under the supervision of regulatory authorities in the various states. Some of these companies sell all lines of insurance; many specialize in one or more fields. Some 3,555 of those companies sell some form of property and casualty insurance, and related lines, including inland marine coverages and surety and fidelity bonds. A vast majority of the property/casualty business is written by about 900 companies that operate in all or most states.

The property and casualty insurance business plays a major role in keeping the American economy moving. Insurance coverages backstop the extensive commercial and consumer credit system of the nation. Further, surety bonds are required on almost all public works and commercial construction, to protect against loss in the event the contractor fails to fulfill his or her obligations.

In large part because of insurance coverage, Americans—business owners and employees, home owners, and car owners—have more financial protection and a greater sense of security than any people anywhere have ever enjoyed in the history of the world.

## Property/Casualty Insurance in 1986–1987: A Review

The property/casualty insurance industry's earnings improved substantially in 1986. For the first time in three years, investment income offset the underwriting deficit, and the industry produced pre-tax income of $6 billion after two consecutive years of losses. Tax credits and capital gains from the sale of assets contributed heavily to a total after-tax net income of $13.1 billion, as shown in the table below.

**Profit (Loss) in the Property/Casualty Insurance Business, 1986**
**(Figures are in billions of dollars.)**

| | |
|---|---|
| Earned Premiums | $166.4 |
| Incurred Loss (including loss adjustment expense) | 135.8 |
| Underwriting Expenses | 44.5 |
| Policyholder Dividends and other minor items | 2.0 |
| Underwriting Loss | (15.9) |
| Investment Income (interest and dividends) | 21.9 |
| Operating Loss | 6.0 |
| Realized Capital Gains | 6.5 |
| Tax Credits | 0.6 |
| Net After-Tax Income | 13.1 |

The industry's rate of return on net worth on the statutory accounting basis was 13.9 percent, up from 2.8 percent in 1985. Statutory accounting is the accounting system that practically all insurance companies use in reporting to state insurance regulators.

The industry's policyholder's surplus rose by 24.9 percent from $75.5 billion at year-end 1985 to $94.3 billion at year-end 1986. (Policyholder's surplus is the capital that provides protection against unexpected or catastrophic losses.)

**Changes in Surplus, 1985-1986**
**(Figures are in billions of dollars.)**

| | | |
|---|---|---|
| Surplus, end of 1985 | | $75.5 |
| Changes in 1986: | | |
| Net After-Tax Income | + $13.1 | |
| Unrealized Capital Gains | + 2.1 | |
| New Funds | + 5.7 | |
| Less Stockholder Dividends and other minor items | − 2.1 | |
| Net Change | + 18.8 | |
| Surplus, end of 1986 | | $94.3 |

The turnaround in operating results reflected basically increased prices following five years of intense price competition that ended in mid-1984. Net written premiums at $176.6 billion were up 22.4 percent in 1986, more than matching the 22 percent rise in 1985.

Earned premiums also showed a healthy increase, up 24.8 percent to $166.4 billion from $133.3 billion in 1985. The industry's combined ratio, which basically reflects what is assigned for claim losses and expenses versus what is taken in in premiums, was 108.1, a significant improvement over the 1985 figure of 116.5 (A combined ratio of 108.1 means that for every dollar the industry took in, it incurred more than $1.08 in losses and expenses.)

## Tax Reform Act of 1986

The Tax Reform Act of 1986 contained the first major overhaul of the tax system for property/casualty insurance companies since 1921. While the Act in general was aimed at simplifying the system for individuals, the overriding goal of the changes for the property/casualty insurance industry was the raising of revenue.

The taxation system created by the Tax Reform Act of 1986 starts with pretax income on a statutory accounting basis. Then a number of adjustments are made to come up with taxable income. Taxable income in 1987 is taxed at 40 percent, which is the tax rate for all U.S. corporations. For 1988 and beyond, the corporate tax rate will be 34 percent. After 1987, capital gains and income from operations will be taxed at the same rate of 34 percent. Prior to the Tax Reform Act, long-term capital gains were taxed at a lower rate than operating income.

The key adjustments made from statutory accounting to taxable income are: discounting of loss reserves, inclusion in income of 20 percent of the unearned premium reserve, and special treatment of certain dividends and tax-exempt income.

## Medical Malpractice Insurance

Although the combined ratio for the medical malpractice insurance line improved from 166.0 in 1985 to 138.6 in 1986, that line continued to be highly unprofitable for insurers, and availability and affordability problems persisted in many areas of the country.

The situation became particularly acute in Florida when two major insurers of physicians announced they were withdrawing from the state after the Insurance Department rejected proposed rate increases. Two groups have been appointed to look into Florida's malpractice crisis, and the state's insurance commissioner has called for the creation of a mandatory pool for malpractice insurance.

## Tort Reform Efforts

In a report released in March 1987, the Antitrust Division of the Justice Department said it found no evidence that the crisis in liability in-

surance affordability and availability was attributable to collusion in the insurance industry. The report did indicate, however, that there is a direct link between tort reform and insurance availability and affordability. The report cited evidence that "unanticipated changes in the manner in which tort liability has been established and damages assessed, along with the uncertainty engendered by these changes, are directly responsible for the current affordability problems in property/casualty insurance."

To make the tort liability system more predictable—and thus reduce claim costs—the property/casualty insurance business and many other industries and organizations intensified efforts to promote legislation to alleviate the excessive costs of litigation. The agenda for change focused on four key areas: abolition of joint and several liability; modification of the collateral source rule; reinstitution of the state-of-the-art defense, and limitations on punitive damages. Tort reform groups also encouraged the use of alternative dispute resolution procedures such as mediation and arbitration.

By mid-1987, most states had approved at least some kind of tort reform measure (see table, pages 60 and 61).

### Regulation of the Insurance Industry

The passage of tort reform legislation was sometimes accompanied by the passage of legislation placing further regulatory restrictions on the insurance industry. Such regulation typically imposed flex rating on insurers, whereby rate changes above a certain percentage are subject to review by the insurance commissioners, placed limits on when insurers may cancel policies, and increased insurer data-reporting requirements.

### The Civil Justice System

Several studies released in 1986 and the first half of 1987 shed light on the workings and costs of the civil justice system in the United States. In July 1986, the Rand Corporation's Institute for Civil Justice released the preliminary findings of a study revealing that plaintiffs in personal injury lawsuits receive only 45 cents in compensation for every dollar spent on the civil justice system. During the five years studied, the volume of lawsuits filed increased an average of 3.9 percent a year. The study put the cost of liability lawsuits in state and federal courts in 1986 at between $27.7 billion and $34.7 billion.

A report issued by the Bureau of Justice Statistics in July 1987 stated that the number of civil cases filed in federal courts has skyrocketed over the last decade and a half—from 87,300 in 1970 to 254,800 in 1986. On the other hand, the number of criminal cases rose only slightly over the same period.

## Crucial Ruling in Asbestos Case

In June 1987, a California Superior Court judge issued a decision which could have broad implications for insurers. Judge Ira A. Brown Jr. ruled that coverage for asbestos claims is provided by all policies in force at any time between exposure to asbestos and diagnosis or death. The judge also rejected insurers' arguments that asbestos producers should share in the cost of claims and defense for periods that they were uninsured or self-insured. If the ruling stands, it could affect insurer liability not only in asbestos cases, but in toxic injury claims involving radiation, pollution, and other harmful substances where illnesses are discovered long after exposure.

## Automobile Insurance

The cost of automobile insurance became a major issue in many states in 1986 and the first half of 1987. The consumer price index for automobile insurance increased 13.3 percent in 1986, compared to a growth in the overall consumer price index of 1.9 percent. Despite the rising cost of auto insurance, there was no significant improvement in profitability for auto insurers, particularly in the area of private passenger liability. The combined ratio for that line improved only slightly—from 118.9 in 1985 to 117.9 in 1986.

## Financial Services

Legislation to allow banks to enter the insurance business was on the banking industry's agenda in several states, including California, Illinois, Washington and New York. In August 1987, Oregon enacted legislation allowing state-chartered banks to sell all lines of insurance. However, in July 1987, Nevada's governor vetoed a bill that would have allowed state-chartered banks to rent space in their branch offices to insurance agents.

## Major Sources of Loss

Insured catastrophic losses during 1986 were estimated at $871.5 million, 69 percent lower than the record $2.82 billion set in 1985 and a five-year low.

Also in 1986, in other major loss categories that affect insurance:

- The economic cost of motor vehicle accidents was estimated at $80 billion.
- Dollar losses from robberies, burglaries, larcenies and motor vehicle thefts totaled some $12.3 billion.
- Property losses from fires totaled an estimated $8.3 billion, up about 7.4 percent from the 1985 figure.

## Congressional Actions

In 1987, Congress continued to give considerable attention to issues of interest to the property/casualty insurance business.

For example, Congress passed the 1986 Amendments to the Risk Retention Act of 1981. The 1981 Act allowed groups of businesses or nonprofit organizations to self insure or to purchase insurance for product liability as a group. The 1986 Amendments expand the 1981 Act to include all types of commercial liability coverages.

The national ceiling on highway speed limits was raised to 65 miles per hour early in 1987. A number of states promptly raised their limits on nonurban sections of interstate highways.

Several legislators proposed amending or repealing the McCarran-Ferguson Act, the 1945 law which gives the states primary responsibility for insurance regulation and which provides the insurance industry with limited exemption from federal antitrust laws. Hearings were held in both the Senate and the House Judiciary Committees, but no further action was taken. Several officials from the Reagan Administration have given qualified endorsement to revising the law, while state government representatives have hardened their opposition to any changes.

The Price-Anderson Act, governing liability in the event of an accident at a civilian nuclear facility, officially expired on August 1, 1987. While the House passed renewal legislation in late July, the Senate was still working on it in September. Already-licensed power plants continued to operate under the old law's liability cap of approximately $700 million, while new licensees could not obtain coverage pending approval of the new bill.

Legislation requiring that past and present employees be notified of workplace health hazards made significant progress. So-called high risk notification measures were approved by both House and Senate committees before the August 1987 Congressional recess.

In late summer, the President signed a law propping up the Federal Savings and Loan Insurance Corporation, which needed authority to borrow $10 billion in order to remain solvent. The legislation also created a moratorium, until March 1988, on the further entry of banks into the insurance, real estate or securities businesses. This sets the stage for further Congressional battles.

Legislation renewing the Federal Trade Commission's (FTC) statutory authority was before Congress, with the Senate passing it in late spring 1987 but the House deferring consideration until after Labor Day. Contained in both bills were instructions for the FTC to study the recent troubles in commercial and professional liability insurance markets. Legislators specifically rejected lifting the 1980 ban on the FTC's conducting insurance studies without prior Congressional approval.

## Property/Casualty Insurance Companies by State

The property/casualty insurance business in the United States comprised 3,555 individual companies early in 1987, according to information provided by the insurance departments of the various states. About 900 of the 3,555 companies operate in all or most states and among them write a vast majority of the business. The other companies perform vital insurance services limited to people in sharply defined geographical areas or to members of specialized groups, such as farmers.

Home offices of the companies are scattered among the 50 states and the District of Columbia. Thirty-three states house 30 or more companies each. The state with the greatest number of company home offices is Illinois, with 289, followed by Texas with 218, New York with 205 and Iowa with 202.

The number of property/casualty insurance company home offices in each state is listed below.

### Property/Casualty Insurance Companies by State, 1987

| State | Home Offices | State | Home Offices |
|---|---|---|---|
| Alabama | 29 | Missouri | 199 |
| Alaska | 10 | Montana | 15 |
| Arizona | 26 | Nebraska | 78 |
| Arkansas | 27 | Nevada | 6 |
| California | 112 | New Hampshire | 33 |
| Colorado | 37 | New Jersey | 56 |
| Connecticut | 59 | New Mexico | 7 |
| Delaware | 110 | New York | 205 |
| District of Columbia | 11 | North Carolina | 70 |
| Florida | 80 | North Dakota | 40 |
| Georgia | 38 | Ohio | 159 |
| Hawaii | 14 | Oklahoma | 56 |
| Idaho | 14 | Oregon | 19 |
| Illinois | 289 | Pennsylvania | 199 |
| Indiana | 117 | Rhode Island | 22 |
| Iowa | 202 | South Carolina | 34 |
| Kansas | 34 | South Dakota | 53 |
| Kentucky | 37 | Tennessee | 43 |
| Louisiana | 38 | Texas | 218 |
| Maine | 21 | Utah | 10 |
| Maryland | 35 | Vermont | 103 |
| Massachusetts | 44 | Virginia | 49 |
| Michigan | 59 | Washington | 26 |
| Minnesota | 176 | West Virginia | 18 |
| Mississippi | 21 | Wisconsin | 194 |
| | | Wyoming | 3 |

Source: State Insurance Departments

## Employment in Insurance

Employment by insurance companies in the United States increased by about 8.1 percent in 1986, to 1,364,200 from 1,261,800 in 1985, according to data compiled by the Bureau of Labor Statistics of the U.S. Department of Labor (BLS). Employment by property/casualty insurers rose by less than one-half of one percent.

BLS estimated the number of agents, brokers and service personnel in all segments of the business at 580,700, about 4.7 percent more than the number reported by the agency in 1985.

In the table below, the tally of agents, brokers and service personnel for the years 1978 through 1984 reflect an annual adjustment in the government figures to take into account estimates by the American Council of Life Insurance of additional agents and staff personnel. An apparent decline in the number of persons employed in those categories in 1985 is explained by the fact that the ACLI has discontinued making such an estimate beginning with that year. It will be noted that BLS data reflect a 20 percent rise in all-industry employment since 1977.

Separate data compiled by the Equal Employment Opportunity Commission show that in 1984, the latest year for which such data were available:

- Members of minority groups constituted 18.1 percent of insurance personnel, up from 10.7 percent in 1970.
- Women constituted about 65 percent of the insurance industry work force, as compared to 55 percent in 1970.
- Some 32 percent of the employees classified as insurance officials or managers were women, who held only 10.8 percent of such positions in 1970.
- Women comprised 49 percent of all professional employees in insurance (up from 16.9 percent in 1970) and 67.1 percent of insurance technicians (up from 38.4 percent in 1970).

### Employment in Insurance 1977-1986 (Annual Averages)

| Year | Property/Casualty Companies | Other Companies | Agents, Brokers & Service Personnel* | All-Industry* |
|---|---|---|---|---|
| 1977 | 425,300 | 715,600 | 372,200 | 1,513,100 |
| 1978 | 446,900 | 726,700 | 592,600 | 1,766,200 |
| 1979 | 467,600 | 732,200 | 625,100 | 1,824,900 |
| 1980 | 477,100 | 747,000 | 652,300 | 1,876,400 |
| 1981 | 478,000 | 758,900 | 665,600 | 1,902,500 |
| 1982 | 478,500 | 758,800 | 744,200 | 1,981,500 |
| 1983 | 470,800 | 762,900 | 744,900 | 1,978,600 |
| 1984 | 472,700 | 775,100 | 770,000 | 2,017,800 |
| 1985 | 474,400 | 787,400 | 554,400 | 1,816,200 |
| 1986 | 501,300 | 862,900 | 580,700 | 1,944,900 |

*1978-1984 figures from the Bureau of Labor Statistics have been adjusted to account for American Council of Life Insurance estimates of additional independent agents and staff personnel. Those estimates have been discontinued, and all 1985 and 1986 figures are those reported by the Bureau of Labor Statistics.

Sources: Bureau of Labor Statistics, U.S. Department of Labor; American Council of Life Insurance

## Ownership of Insurance

Some 95 percent of the nation's home owners, but fewer than 25 percent of people who rent their homes, carry household insurance to protect themselves against potentially disastrous financial losses. This was among the findings of a countrywide survey conducted by Cambridge Reports, Inc., for the Insurance Information Institute in July and August 1986.

The study found that more than two of every three Americans (69 percent) owned their homes and that fewer than one of every three (27 percent) were renters.

The survey reflected a slight increase, since the last similar study in April 1984, in the percentage of home owners who carry household insurance. By contrast, the percentage of renters who have insurance on their household contents and personal possessions dropped about five points over the same period. Interestingly, about 2 percent of the home owners and 8 percent of the renters who responded to the 1986 survey were not sure whether or not they were insured.

A demographic focus on the renters revealed these significant findings:

- About 50 percent of college graduates who rent their homes carry household insurance. By contrast, about 80 percent of renters with less than a high school education said they did not carry such coverage.
- Persons under age 46 are less likely to carry renters insurance than are older persons.
- Some 26 percent of renters who are white, but only 14 percent who are black, have renters insurance.
- Only 8 percent of renters who live in the Northeast have renters insurance. In other areas of the nation, the percentages who have coverage range from 19 percent in the Pacific area to 46 percent in the Midlands.

Respondents to the 1986 survey were not asked whether they carry automobile insurance. However, an I.I.I. survey conducted five years earlier indicated that some 92 percent of all car owners have that protection.

### Insurance Coverage Reported by U.S. Households

| | % of Public | Have Insurance | Don't Have Insurance | Not Sure |
|---|---|---|---|---|
| Home Owners | | | | |
| 1986 | 69% | 95% | 3% | 2% |
| 1984 | 67 | 93 | 4 | 3 |
| Renters | | | | |
| 1986 | 27% | 23% | 69% | 8% |
| 1984 | 29 | 28 | 65 | 8 |

Source: Insurance Information Institute

## The World Insurance Market

The United States accounted for about 47.8 percent of the world's insurance premium volume (excluding Eastern Bloc countries and China) in 1985, according to a study by the Zurich-based Swiss Reinsurance Company. The free world's premium total of $629 billion (in U.S. dollars) was about 26 percent higher than that of 1984.

Swiss Re's most recent study, whose findings were reported in April 1987, examined the significance and development of the insurance markets in Europe and the United States. The two insurance markets in 1985 shared about 73.5 percent of the free world's premium volume.

Comparison of the latest data with those of a study a year earlier shows that while the United States' share of the free world's premium volume declined from 50.88 percent in 1984 to 47.8 percent in 1985, the European share rose from 23.6 percent to 25.7 percent. The earlier study, covering 55 countries throughout the free world, showed that the single nation with the second greatest premium volume was Japan, which in 1984 accounted for 14.78 percent of the total market.

Overall, in 1985, the United States produced well over half of the premium volume in the non-life business, which includes property/casualty insurance and accident and health, and 40 percent of the premium volume in life insurance. Non-life accounted for some 54.7 percent of the world premium volume.

The following table summarizes the world premium shares of the European and United States markets in 1985, broken down into life and non-life business.

| | U. S. Dollars (000,000 omitted) | | | World Share (%) | | |
|---|---|---|---|---|---|---|
| | Total | Non-Life | Life | Total | Non-Life | Life |
| United States | $300,723 | $186,697 | $114,026 | 47.8% | 54.3% | 40.0% |
| Europe* | 161,673 | 91,189 | 70,484 | 25.7 | 26.5 | 24.7 |
| World | 629,000 | 344,000 | 285,000 | 100.0 | 100.0 | 100.0 |

*Includes estimated data for Finland, Netherlands, Norway, Sweden and Spain.
Source: Sigma, Swiss Reinsurance Company

An examination of the development of insurance premiums per capita reflects a significant advance in Europe, in that respect, in recent years. Swiss Re observed that premiums-per-capita data often are "used as an indicator of prosperity, the state of the insurance industry, and market potential."

The study showed that in 1965, premiums per capita in the United States amounted to $224.7, or more than four and a half times greater than the figure of $48.8 recorded in Europe. By 1985, the margin of difference had been reduced by about one third, although it still amounted to more than 300 percent ($1,256.7 in the United States; $402.1 in Europe).

Among the European countries, only Switzerland reached the per capita insurance level shown for the United States; in fact, at $1,274, Switzerland regained the world leadership in premiums per capita that it lost to the United States a year earlier. In the other European countries, the premiums per capita figures ranged from $726 in West Germany to as low as $5 in Turkey.

Looking at the economic significance of the insurance industry as measured by its relationship to the gross national product (GNP), Swiss Re said the United States' premiums as a percentage of GNP stood at 7.5 in 1985, as compared with Europe's 4.9. The report noted that the difference in the two figures was not as great as in 1965, when the U.S. figure was almost double that of Europe, but commented that, "A not inconsiderable part of this difference can be explained by the different social insurance systems. Their importance in Europe is, on the whole, greater than in the U.S.A. In recent years, though, the development of the European social system has slowed down. For this reason, substantial growth rates in private insurance demands can be expected to continue."

Swiss Re observed that the various inflation rates play a minor role in the comparisons, since all figures were calculated on a dollar basis and the inflation differences, in the long term, are evened out through the rates of exchange.

The report said the average real growth rate per year from 1970 to 1985 was greater in Europe (4.3 percent) than in the United States (3.2 percent), while the real growth rate of GNP was equal at 2.5 percent annually. Swiss Re said this means that, with the increasing gross national product, insurance demand is growing more in Europe than in this country. Looking into the reason, the company examined the relative income elasticity of insurance demand (a measure of the relationship of the percentage change of insurance demand to the percentage change of the GNP) in this country and in Europe.

While the elasticity was found to be considerably lower in this country from 1970 through 1984 than in six European nations examined, that finding should not be seen as stagnation, the report said.

"A glance at the premium growth rates in 1985 and 1986 of 14.7 percent and 21 percent (property/casualty) supports the conclusion that the slowed-down growth between 1970 and 1984 is to be attributed to special factors," Swiss Re commented. "Worthy of mention are, for example, the problems in the American legal system and in the liability sector. The price corrections in the market therefore indicate that a higher elasticity and with it a higher insurance demand can be expected in the long run."

# 2. Dollars and Cents of the Business

## Net Premiums Written by Line

Total premiums written by insurance companies in the United States for all types of insurance totaled more than $350.2 billion in 1986.

Net premiums written by property and casualty companies totaled more than $176.5 billion, up 22 percent from the 1985 total.

Approximate premium totals for principal property, liability and allied lines of insurance in 1985 and 1986 are tabulated below, along with the percentage of change in premium volume in each of those lines in 1986.

### Net Premiums Written by Line, 1985-1986*

| | 1986 | 1985 | % Change |
|---|---|---|---|
| Auto Liability, Pvt. Passenger | $ 32,972,920,000 | $ 28,243,882,000 | + 16.7% |
| Auto Liability, Commercial | 11,108,002,000 | 7,842,789,000 | + 41.6 |
| Total Auto Liability | 44,080,922,000 | 36,086,671,000 | + 22.2 |
| Auto Physical Damage, Pvt. Passenger | 24,198,891,000 | 21,180,583,000 | + 14.3 |
| Auto Physical Damage, Commercial | 5,106,615,000 | 4,066,138,000 | + 25.6 |
| Total Auto Physical Damage | 29,305,506,000 | 25,246,721,000 | + 16.1 |
| Total Automobile | 73,386,428,000 | 61,333,392,000 | + 19.7 |
| Medical Malpractice | 3,491,905,000 | 2,769,230,000 | + 26.1 |
| General Liability | 19,364,658,000 | 11,544,152,000 | + 67.7 |
| Total Liability (other than auto) | 22,856,563,000 | 14,313,382,000 | + 59.7 |
| Fire Insurance and Allied Lines** | 6,933,221,000 | 6,173,369,000 | + 12.3 |
| Homeowners Multiple Peril | 15,222,027,000 | 14,066,391,000 | + 8.2 |
| Farmowners Multiple Peril | 828,365,000 | 769,915,000 | + 7.6 |
| Commercial Multiple Peril | 16,190,282,000 | 12,096,578,000 | + 33.8 |
| Workers' Compensation | 20,431,215,000 | 17,047,548,000 | + 19.8 |
| Inland Marine | 3,898,591,000 | 3,672,227,000 | + 6.2 |
| Ocean Marine | 1,224,729,000 | 1,176,528,000 | + 4.1 |
| Surety and Fidelity | 2,116,275,000 | 2,852,680,000 | − 25.8 |
| Financial Guaranty*** | 575,008,000 | — | — |
| Burglary and Theft | 121,055,000 | 122,259,000 | − 1.0 |
| Boiler and Machinery | 531,319,000 | 618,358,000 | − 14.1 |
| Glass | 26,608,000 | 25,492,000 | + 4.4 |
| Aircraft | 711,862,000 | 508,480,000 | + 40.0 |
| Accident and Health | 2,929,510,000 | 3,205,359,000 | − 8.6 |
| Other Lines | 8,569,012,000 | 6,204,462,000 | + 38.1 |
| Total, All Lines | $176,552,070,000 | $144,186,420,000 | + 22.4 |

*Net premiums written represent premium income retained by insurance companies, direct or through reinsurance, less payments made for business reinsured.

**Allied lines include crop-hail insurance premiums, reported separately on page 28, and earthquake insurance premiums.

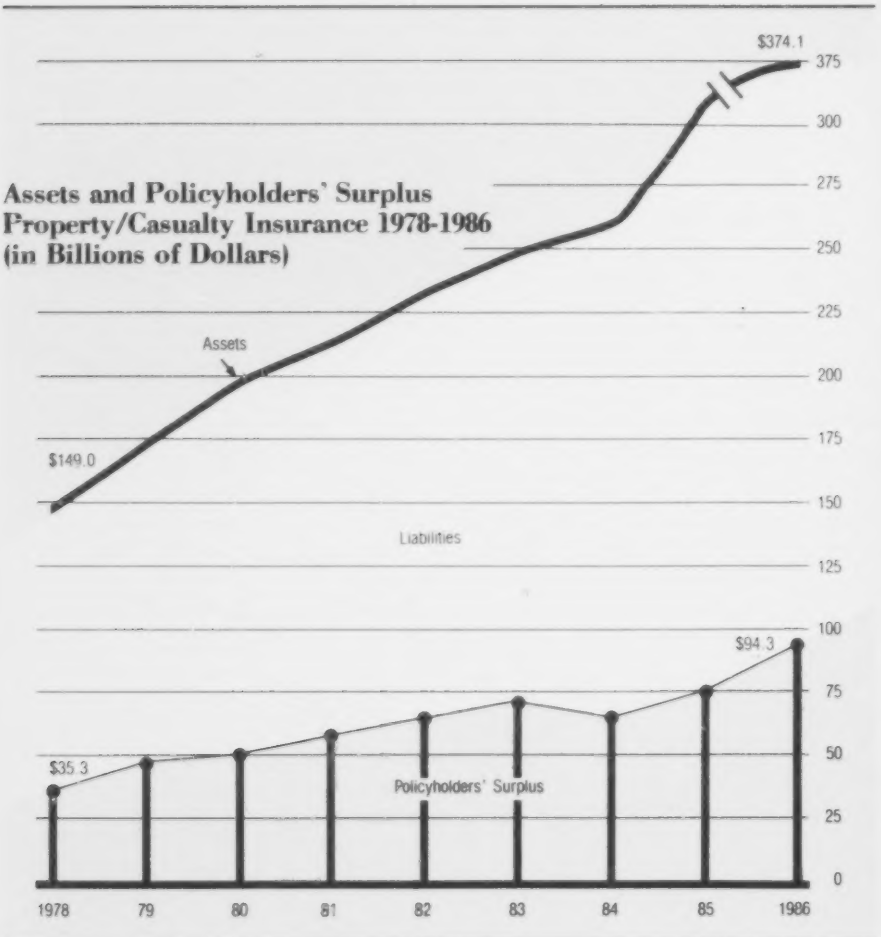
***Financial guaranty first broken out in 1986.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages

## Assets and Policyholders' Surplus

An idea of the strength and reliability of the property and casualty insurance business may be gained from a review of its assets and policyholders' surplus. The surplus is the sum remaining after liabilities are deducted from assets, and includes such sums as paid-in capital and special voluntary reserves. It provides additional financial protection to policyholders in the event of unexpected or catastrophic losses.

Traditionally, assets and policyholders' surplus have been reported in terms of aggregate totals, with the result that industrywide figures have included some duplications because of interownerships within company groups. However, consolidated totals, computed by eliminating interownerships, provide a more accurate picture of the industry's financial position. The graph below, based on the consolidated figures, shows that while both assets and the policyholders' surplus have been climbing steadily, liabilities have been increasing at a greater rate than surplus.




Source: Insurance Information Institute, based on data from Best's Aggregates & Averages

As reflected by the table that follows, policyholders' surplus rose by some 24.9 percent from 1985 to 1986. From 1978 through 1986, policyholders' surplus climbed by 166.5 percent.

Assets, up 20.1 percent in 1986, have risen by about 151 percent since 1978. Most of those assets are invested in government, industrial and utility bonds, high grade stocks and to some extent in the real estate which the companies use for their own offices.

### Consolidated Assets and Policyholders' Surplus 1978-1986

| | Assets | Annual % Change | Policyholders' Surplus | Annual % Change |
|---|---|---|---|---|
| 1978 | $149,097,273,952 | | $35,378,833,175 | |
| 1979 | 174,227,967,482 | + 16.9 | 42,456,100,830 | + 20.0 |
| 1980 | 197,660,794,250 | + 13.4 | 52,196,380,693 | + 22.9 |
| 1981 | 212,302,741,594 | + 7.4 | 53,804,788,672 | + 3.1 |
| 1982 | 231,692,712,528 | + 9.1 | 60,394,591,263 | + 12.2 |
| 1983 | 249,121,082,570 | + 7.5 | 65,605,727,424 | + 8.6 |
| 1984 | 264,734,721,825 | + 6.3 | 63,809,497,216 | − 2.7 |
| 1985 | 311,364,665,175 | + 17.6 | 75,511,416,755 | + 18.3 |
| 1986 | 374,088,083,000 | + 20.1 | 94,288,390,000 | + 24.9 |

Source: Best's Aggregates & Averages.

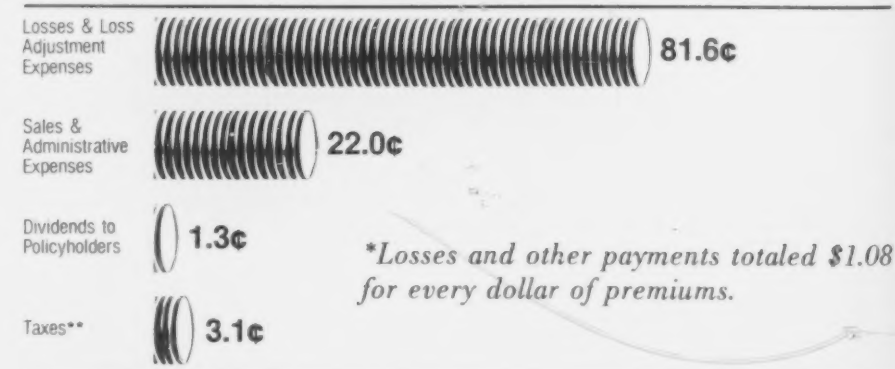
## Where the Premium Dollar Goes

Losses and the expenses involved in adjusting claims accounted for nearly 82 cents of every premium dollar taken in by property and casualty insurers in 1986. The overall cost of underwriting operations in 1986 amounted to the equivalent of $1.08 for every dollar in premiums, although the underwriting operations are intended to yield a reasonable profit.

Even in unprofitable years, some companies pay dividends to commercial policyholders that reflect their favorable loss experience, or dividends that reflect the total loss experience of certain lines of insurance.

### Where the Premium Dollar Goes

Experience of the Property/Casualty Insurance Business in 1986*




*Losses and other payments totaled $1.08 for every dollar of premiums.*

**Excluding federal and foreign income and real estate taxes.

Source: A.M. Best Company, Inc.

## Operating Results, Property/Casualty Insurers

Profits and losses of property and casualty insurance companies, particularly in recent years, have been subject to greater fluctuations than those of such other industries as banks, utilities and industrial companies. Separate analyses show that:

- The property/casualty business during the last quarter-century has recorded a net underwriting loss, after policyholders' dividends, of more than $105 billion. The industry has shown profits on underwriting operations in only six of the last 25 years (Table I).
- Investments of capital and surplus accounts, together with money set aside as loss reserves and unearned premium reserves, have generated income in those 25 years (Table II), permitting companies to continue their insurance operations despite the frequent underwriting deficits.

In 1986, income from investments rose by 12.4 percent to a record $21.9 billion and more than offset losses from underwriting operations for the first time in three years. Net underwriting losses declined by nearly 36 percent to $15.9 billion after reaching record highs in each of the preceding five years.

### I — Underwriting Results
### Property/Casualty Insurance Business, 1962-1986

| Year | Statutory Underwriting Gain/Loss | Policyholder Dividends | Net Underwriting Gain/Loss |
|---|---|---|---|
| 1962 | $ 343,667,196 | $ 297,153,061 | $ 46,514,135 |
| 1963 | – 165,513,560 | 342,918,102 | – 508,431,662 |
| 1964 | – 325,722,907 | 346,383,390 | – 672,106,297 |
| 1965 | – 352,262,883 | 357,266,631 | – 709,529,514 |
| 1966 | 386,926,845 | 406,801,627 | – 19,874,782 |
| 1967 | 233,618,824 | 448,577,105 | – 254,958,281 |
| 1968 | – 148,223,790 | 420,525,267 | – 568,749,057 |
| 1969 | – 529,899,198 | 518,055,044 | – 1,047,954,242 |
| 1970 | 77,776,245 | 503,557,640 | – 425,781,395 |
| 1971 | 1,381,800,492 | 555,628,714 | 826,171,778 |
| 1972 | 1,797,933,814 | 736,282,724 | 1,061,651,090 |
| 1973 | 791,761,321 | 785,697,875 | 6,063,446 |
| 1974 | – 1,878,371,405 | 766,526,721 | – 2,644,898,126 |
| 1975 | – 3,593,959,232 | 632,838,443 | – 4,226,797,675 |
| 1976 | – 1,558,551,291 | 630,100,279 | – 2,188,651,570 |
| 1977 | 1,926,315,435 | 814,512,866 | 1,111,802,569 |
| 1978 | 2,548,142,724 | 1,251,810,856 | 1,296,331,868 |
| 1979 | 23,605,762 | 1,324,377,487 | – 1,300,771,725 |
| 1980 | – 1,712,423,071 | 1,621,544,714 | – 3,333,967,785 |
| 1981 | – 4,463,887,604 | 1,823,748,383 | – 6,287,635,987 |
| 1982 | – 8,303,039,432 | 1,986,826,602 | – 10,289,866,034 |
| 1983 | – 11,087,953,340 | 2,234,116,716 | – 13,322,070,056 |
| 1984 | – 19,378,885,074 | 2,098,061,695 | – 21,476,946,769 |
| 1985 | – 22,597,291,605 | 2,196,246,934 | – 24,793,538,539 |
| 1986 | – 13,747,925,000 | 2,164,969,000 | – 15,912,894,000 |

Source: A. M. Best Company, Inc., Best's Aggregates & Averages.

## II — Investment Income, Property/Casualty Insurers*, 1962-1986

| | | | |
|---|---|---|---|
| 1962 | $ 883,630,622 | 1974 | $ 3,832,669,322 |
| 1963 | 947,022,329 | 1975 | 4,750,203,882 |
| 1964 | 1,031,931,888 | 1976 | 4,805,938,998 |
| 1965 | 1,131,625,619 | 1977 | 5,815,788,033 |
| 1966 | 1,217,979,544 | 1978 | 7,289,554,007 |
| 1967 | 1,351,764,288 | 1979 | 9,279,235,043 |
| 1968 | 1,511,509,149 | 1980 | 11,063,492,131 |
| 1969 | 1,711,806,360 | 1981 | 13,248,494,833 |
| 1970 | 2,005,080,766 | 1982 | 14,906,655,340 |
| 1971 | 2,421,495,267 | 1983 | 15,973,234,243 |
| 1972 | 2,799,737,168 | 1984 | 17,659,728,807 |
| 1973 | 3,325,344,488 | 1985 | 19,507,869,034 |
| | | 1986 | 21,924,445,000 |

*Industrywide investment income, less investment expenses, before taxes. Figures for years prior to 1977 are aggregates and include some duplications because of interownerships within company groups. Totals from 1977 through 1986 have been consolidated to eliminate such duplications. Aggregate investment income figures for all years were used in the development of the second and third charts on page 21 in order to provide a consistent reflection of historical trends.

Source: A. M. Best Company, Inc., Best's Aggregates & Averages.

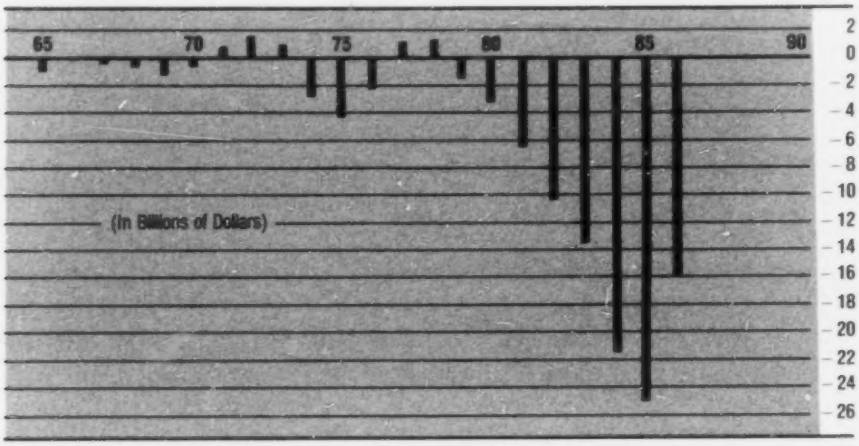
## III — Combined Net Income* before Taxes, Property/Casualty Insurers, 1962-1986

| | | | |
|---|---|---|---|
| 1962 | $ 930,144,757 | 1974 | $ 1,187,771,196 |
| 1963 | 438,590,667 | 1975 | – 76,593,793 |
| 1964 | 359,825,591 | 1976 | 2,617,287,428 |
| 1965 | 422,096,105 | 1977 | 6,927,590,602 |
| 1966 | 1,138,104,762 | 1978 | 8,585,885,875 |
| 1967 | 1,096,806,007 | 1979 | 7,978,463,318 |
| 1968 | 942,760,092 | 1980 | 7,729,524,346 |
| 1969 | 663,852,118 | 1981 | 6,960,858,846 |
| 1970 | 1,579,299,371 | 1982 | 4,616,789,306 |
| 1971 | 3,247,667,045 | 1983 | 2,651,164,187 |
| 1972 | 3,861,388,258 | 1984 | – 3,817,217,962 |
| 1973 | 3,331,407,934 | 1985 | – 5,285,669,505 |
| | | 1986 | 6,011,551,000 |

*Includes both underwriting gains or losses and investment income.

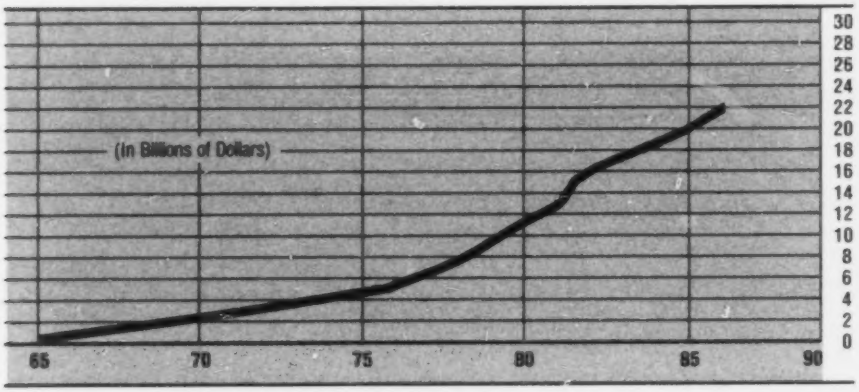
Source: A.M. Best Company, Inc., Best's Aggregates & Averages.

## Underwriting Gains/Losses after Policyholder Dividends Property/Casualty Insurance Business, 1965-1986



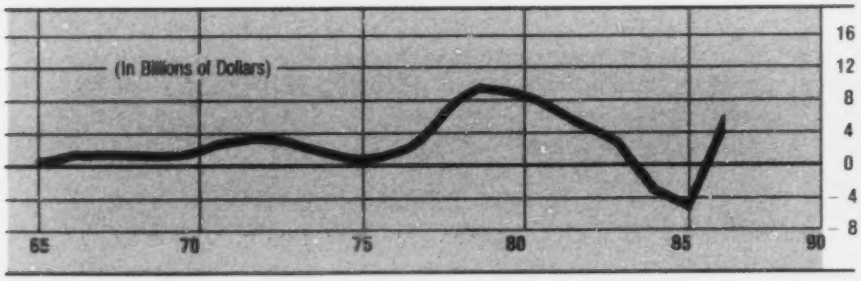

Source: Insurance Information Institute, based on data from Best's Aggregates & Averages.

## Investment Income, Property/Casualty Insurers*, 1965-1986




***Industry aggregates less investment expenses; before taxes.**
Source: Insurance Information Institute, based on data from Best's Aggregates & Averages.

## Combined Net Income* before Taxes, Property/Casualty Insurers, 1965-1986




***Includes both underwriting gains or losses and aggregate investment income.**
Source: Insurance Information Institute, based on data from Best's Aggregates & Averages.

## Profitability, Insurance and Other Industries

The highly competitive nature of the property/casualty insurance business generally has held its profitability over the years below the average of all U.S. industries, although in some years it has outperformed other industries, including those which are financially oriented.

The rate of return on net worth in the insurance industry went below 10 percent in 1982, and remained below 10 percent for four consecutive years before returning to a more normal level in 1986. Generally, the return on net worth of the property/casualty insurance business has been considerably less stable over the years than those recorded by other industries.

The table below compares the average annual rates of return of property/casualty insurers, diversified financial companies as a group, banks, utilities, transportation and all industries combined. The diversified financial group is composed largely of companies engaged in property and casualty insurance with or without life insurance and other financial services.

The insurance data are shown on two bases. The first figures show the rate of return on the statutory accounting basis. Statutory accounting is the accounting system that practically all insurance companies use in reporting to state regulators.

The second column on property/casualty insurance shows the rate of return on the basis of Generally Accepted Accounting Principles (GAAP). Most U.S. industries use GAAP accounting, and thus the data on this basis are more directly comparable to those of other industries. However, the figures are only estimates because many insurance companies, particularly mutuals, do not report their data on the GAAP basis.

### Average Annual Rates of Return on Net Income after Taxes as Percent of Net Worth, Selected Industries

| | Property/Casualty Insurance | | | | | | |
|---|---|---|---|---|---|---|---|
| Year | Statutory Accounting | GAAP Accounting | Diversified Financial | Banks | Utilities | Transportation | All* Industries |
| 1977 | 21.3% | 19.0% | 16.7% | 11.6% | 11.1% | 10.1% | 13.5% |
| 1978 | 20.5 | 18.1 | 17.3 | 12.9 | 11.3 | 13.3 | 14.3 |
| 1979 | 17.4 | 15.5 | 17.5 | 14.1 | 12.0 | 13.2 | 15.9 |
| 1980 | 14.7 | 13.1 | 14.0 | 13.4 | 11.7 | 11.3 | 14.4 |
| 1981 | 13.3 | 11.8 | 11.4 | 13.0 | 12.7 | 13.3 | 13.8 |
| 1982 | 9.3 | 8.8 | 10.0 | 12.0 | 12.5 | 7.9 | 10.9 |
| 1983 | 9.1 | 8.3 | 11.7 | 12.5 | 13.3 | 11.6 | 10.7 |
| 1984 | 1.7 | 1.8 | 9.3 | 12.6 | 13.4 | 13.6 | 13.5 |
| 1985 | 2.8 | 3.8 | 9.4 | 13.0 | 13.0 | 11.5 | 11.6 |
| 1986 | 13.9 | 13.1 | 15.9 | 12.8 | 13.3 | 7.7 | 11.6 |
| Average: 1977-86 | 12.4% | 11.3% | 13.3% | 12.8% | 12.4% | 11.4% | 13.0% |

*Median for Fortune 500 U.S. Industrial Corporations.

Sources: Property/casualty insurance data: GAAP accounting basis, Insurance Services Office. Statutory accounting rate of return calculated by Insurance Information Institute, based on A.M. Best data. All other industry figures for 1984 through 1986 are medians from Fortune Magazine data. The other industry data for the years 1977 through 1983 are industry averages from Fortune Magazine.

## Investments of Property/Casualty Insurers

Investments of property/casualty insurance companies totaled $282.2 billion in 1986. Investments represented about 75.4 percent of total assets, which industrywide totaled more than $374 billion in 1986. Assets not considered investments include such items as office equipment and supplies.

Fixed income securities continue to dominate the investment portfolios, with special revenue bonds accounting for 28 percent of the industry's invested assets in 1986. Special revenue bonds include those issued by hospitals and colleges for expansion of facilities as well as those issued for public works programs, toll bridges and highways.

The last decade has seen significant fluctuations in the make up of insurers' investment portfolios. Overall, the portion of those portfolios invested in bonds jumped from 59.56 percent in 1973 to 70.04 percent in 1976, and stood at 75.97 percent in 1986. Holdings of common stocks dropped from 25.74 percent in 1976 to 18.86 percent in 1986.

Funds used by property/casualty companies for investments are generally derived from three major sources: policyholders' surplus, unearned premium reserves and loss reserves. The companies maintain the bulk of their funds in investments that can be sold readily—stocks and bonds, rather than general real estate—so that prompt payment of claims in the event of a catastrophe is assured.

### Investments of Property/Casualty Insurers

| | % in 1986 | % in 1981 | % in 1976 |
|---|---|---|---|
| **Bonds** | **75.97** | **74.82** | **70.04** |
| U.S. Government | 20.87 | 11.73 | 11.82 |
| Other Government | .83 | .81 | .48 |
| State, Municipal, etc. | 11.54 | 14.90 | 16.32 |
| Special Revenue, etc. | 27.77 | 33.23 | 24.78 |
| Railroad | .23 | .31 | .43 |
| Utility | 2.73 | 3.59 | 4.69 |
| Miscellaneous | 11.81 | 9.84 | 10.98 |
| Parent, Subs., Affiliates | .19 | .41 | .54 |
| **Common Stock** | **18.86** | **18.67** | **25.74** |
| Railroad | .16 | .15 | .03 |
| Utility | 1.73 | 1.52 | 1.92 |
| Bank | — | .95 | 1.19 |
| Insurance | — | .86 | .33 |
| Bank and Insurance* | 1.71 | — | — |
| Miscellaneous | 9.70 | 10.53 | 10.95 |
| Parent, Subs., Affiliates | 5.55 | 4.66 | 11.32 |
| **Preferred Stock** | **2.80** | **4.96** | **3.59** |
| Railroad | .04 | .06 | .01 |
| Utility | 1.57 | 3.33 | 2.83 |
| Bank | — | .11 | .02 |
| Insurance | — | .03 | .06 |
| Bank and Insurance* | .23 | — | — |
| Miscellaneous | .80 | 1.36 | .59 |
| Parent, Subs., Affiliates | .15 | .07 | .08 |
| **Other** | **2.38** | **1.55** | **.63** |
| Mortgages | 1.60 | .77 | .29 |
| Collateral Loans | .06 | .09 | .05 |
| Other Invested Assets | .73 | .69 | .29 |

*Separate breakout of bank and insurance items no longer available as of 1983.

NOTE: Sums of individual items may not add up to totals because of the effects of rounding.

Source: A.M. Best Company, Inc.

## Net Premiums Written, 1977-1986

Total net premiums written by property and casualty companies have risen from about $72.4 billion in 1977 to more than $176.5 billion in 1986, with a 22 percent increase in 1986 alone. Accident and health premiums accounted for $2.9 billion of the total premiums written in 1986 by property and casualty insurers.

### Total Net Premiums Written by Property and Casualty Insurance Companies, 1977-1986 (000 omitted)

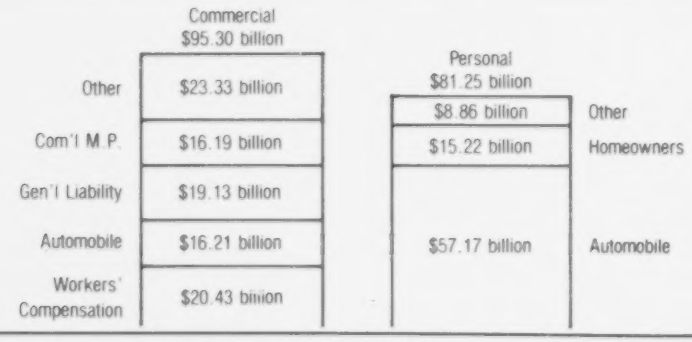
| Year | Accident and Health | All Other | Total | Annual % Change |
|---|---|---|---|---|
| 1977 | $2,316,734 | $ 70,080,195 | $ 72,396,929 | |
| 1978 | 2,627,884 | 79,062,047 | 81,689,931 | + 12.8 |
| 1979 | 3,179,250 | 86,943,369 | 90,122,619 | + 10.3 |
| 1980 | 3,290,764 | 92,388,785 | 95,568,749 | + 6.0 |
| 1981 | 3,585,113 | 95,690,462 | 99,275,575 | + 3.9 |
| 1982 | 4,306,651 | 99,661,570 | 103,968,221 | + 4.7 |
| 1983 | 4,347,760 | 104,635,048 | 108,982,808 | + 4.8 |
| 1984 | 3,836,695 | 114,329,616 | 118,166,311 | + 8.4 |
| 1985 | 3,205,359 | 140,981,061 | 144,186,420 | + 22.0 |
| 1986 | 2,929,510 | 173,622,560 | 176,552,070 | + 22.4 |

Source: A.M. Best Company, Inc., Best's Aggregates & Averages.

## Who Pays the Premium Dollar?

Purchases by individuals and their families accounted for $81.3 billion, or 46 percent of the $176.5 billion in net premiums written by property and casualty insurers in the United States in 1986. Premiums paid by commercial purchasers amounted to about $95.3 billion with the heaviest concentrations in workers' compensation, automotive coverages, general liability and commercial multiple peril "package" policies. Estimates of the amount of premiums paid by commercial and individual insurance purchasers are shown below.

### Purchases of Property and Casualty Insurance, 1986




Source: Insurance Information Institute, based on data provided by A.M. Best Company.

## Automobile Insurance

In the face of continually climbing medical, legal and automobile repair costs, a vast majority of America's 159 million motorists are recognizing the prudence of purchasing automobile insurance to protect themselves against financial hardship resulting from motor vehicle accidents.

Auto insurance, in fact, is by far the largest single classification of the property/casualty insurance business. The premium volume of $73.4 billion recorded in 1986 was almost double that of 1979, only seven years earlier. Auto insurance in 1986 accounted for about 41.6 percent of the total premium volume written by property/casualty insurers.

Automobile liability insurance comprised about 60 percent of all auto insurance purchases in 1986. The possession of auto liability insurance has become a virtual necessity for most motorists, both for their own financial protection and to enable them to meet the requirements of financial responsibility laws and/or compulsory auto insurance laws of their states (see page 103).

Auto insurance is purchased primarily by individuals or family groups. However, the premium volume for the commercial lines rose sharply in 1985 and again in 1986. In 1986, industrial and other commercial buyers accounted for 22.1 percent of all auto insurance purchases, up from 19.4 percent in 1985.

While some companies recorded at least modest profits, the industry as a whole again suffered an underwriting deficit on the auto insurance lines in 1985 with the worst losses coming in the liability lines. Overall, the auto insurance business has been in the red in eight of the last 10 years, although the physical damage lines showed a profit in each of the last two years.

### Automobile Liability Insurance, 1977-1986

| | Private Passenger | | | Commercial | | |
|---|---|---|---|---|---|---|
| Year | Premiums Written | Annual % Change | Combined Ratio* | Premiums Written | Annual % Change | Combined Ratio* |
| **1977** | $15,085,260,000 | | 98.8 | $3,892,498,000 | | 98.4 |
| **1978** | 16,047,775,000 | + 6.4% | 98.3 | 4,335,232,000 | + 11.4% | 99.3 |
| **1979** | 17,385,444,000 | + 8.3 | 100.8 | 4,716,903,000 | + 8.8 | 104.4 |
| **1980** | 18,590,373,000 | + 6.9 | 102.6 | 4,728,913,000 | + 0.3 | 109.0 |
| **1981** | 19,649,912,000 | + 5.7 | 108.9 | 4,745,262,000 | + 0.3 | 117.5 |
| **1982** | 21,487,468,000 | + 9.4 | 110.1 | 4,738,978,000 | − 0.1 | 125.6 |
| **1983** | 23,343,939,000 | + 8.6 | 111.0 | 4,736,128,000 | − 0.1 | 132.0 |
| **1984** | 24,809,382,000 | + 6.3 | 112.8 | 5,407,281,000 | + 14.2 | 142.4 |
| **1985** | 28,243,882,000 | + 13.8 | 118.9 | 7,842,789,000 | + 45.0 | 126.3 |
| **1986** | 32,972,920,000 | + 16.7 | 117.9 | 11,108,002,000 | + 41.6 | 111.6 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A. M. Best Company, Inc., Best's Aggregates & Averages.

## Automobile Physical Damage Insurance, 1977-1986

| Year | Private Passenger Premiums Written | Private Passenger Annual % Change | Private Passenger Combined Ratio* | Commercial Premiums Written | Commercial Annual % Change | Commercial Combined Ratio* |
|---|---|---|---|---|---|---|
| 1977 | $9,605,041,000 | | 92.1 | $1,946,717,000 | | 88.0 |
| 1978 | 10,540,718,000 | + 9.7% | 95.9 | 2,294,195,000 | + 17.8% | 89.5 |
| 1979 | 11,909,408,000 | + 13.0 | 100.3 | 2,628,293,000 | + 14.6 | 93.6 |
| 1980 | 13,086,150,000 | + 9.9 | 96.6 | 2,746,853,000 | + 4.5 | 95.9 |
| 1981 | 14,033,870,000 | + 7.2 | 98.6 | 2,713,919,000 | - 1.2 | 99.8 |
| 1982 | 15,292,070,000 | + 9.0 | 101.4 | 2,713,417,000 | - 0.0 | 106.0 |
| 1983 | 16,974,304,000 | + 11.0 | 96.3 | 2,773,199,000 | + 2.2 | 105.9 |
| 1984 | 18,497,769,000 | + 9.0 | 100.6 | 3,268,035,000 | + 17.8 | 110.9 |
| 1985 | 21,180,583,000 | + 14.5 | 98.9 | 4,066,138,000 | + 24.4 | 97.1 |
| 1986 | 24,198,891,000 | + 14.3 | 93.6 | 5,106,615,000 | + 25.6 | 82.1 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A. M. Best Company, Inc., Best's Aggregates & Averages

## Fire Insurance and Allied Lines

Although fire insurance coverage is sold widely as part of the popular homeowners and commercial multiple peril policies, premium volume from fire insurance policies increased by some 8.4 percent in 1986. It was the third straight annual increase after four years of diminishing premium volumes. The premium volume for allied lines, which includes crop-hail insurance as well as coverage against windstorm, earthquake and other perils, rose by 20.7 percent.

## Fire Insurance and Allied Lines, 1977-1986

| Year | Fire Insurance Premiums Written | Fire Insurance Annual % Change | Fire Insurance Combined Ratio* | Allied Lines** Premiums Written | Allied Lines** Annual % Change | Allied Lines** Combined Ratio* |
|---|---|---|---|---|---|---|
| 1977 | $3,057,800,000 | | 90.1 | $1,442,158,000 | | 78.8 |
| 1978 | 3,223,389,000 | + 5.4% | 88.8 | 1,451,979,000 | + 0.7% | 89.9 |
| 1979 | 3,246,495,000 | + 0.7 | 94.3 | 1,534,155,000 | + 5.7 | 100.7 |
| 1980 | 3,209,955,000 | - 1.1 | 97.7 | 1,573,940,000 | + 2.6 | 103.8 |
| 1981 | 3,192,516,000 | - 0.5 | 97.6 | 1,624,487,000 | + 3.2 | 94.6 |
| 1982 | 3,153,523,000 | - 1.2 | 97.4 | 1,682,885,000 | + 3.6 | 99.2 |
| 1983 | 3,011,743,000 | - 4.5 | 104.1 | 1,596,561,000 | - 5.1 | 108.3 |
| 1984 | 3,198,402,000 | + 6.2 | 111.5 | 1,654,243,000 | + 3.6 | 103.3 |
| 1985 | 4,218,247,000 | + 31.9 | 95.4 | 1,955,122,000 | + 18.2 | 101.4 |
| 1986 | 4,574,210,000 | + 8.4 | 90.9 | 2,359,011,000 | + 20.7 | 80.4 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

**Covers a wide variety of perils, including windstorm, riot, explosion, sprinkler leakage, water damage and earthquakes; also includes crop-hail premiums.

Source: A. M. Best Company, Inc., Best's Aggregates and Averages

## Multiple Peril Insurance

Until the mid-1950s, property owners had to buy a variety of insurance coverages separately in order to obtain full coverage against such perils as fire, windstorm, burglary and theft, and to protect themselves against liability claims. While most property owners purchased fire and extended coverage insurance, many failed to take advantage of other available forms of coverage. It was to help people more adequately safeguard their resources that insurers developed the homeowners, commercial and other "package" policies offering adequate coverage against a variety of perils at a cost lower than the combined costs of the individual coverages.

The success of the package policies has had a pronounced effect on the amount of insurance written on such separate lines as fire and extended coverage, liability (other than auto), burglary and theft, inland marine and glass because of the inclusion of such coverages in the various multiple peril policies.

In recent years, growth in the homeowners and farmowners package policies has leveled out and is now at about the rate of growth in the overall economy. Commercial multi-peril premiums jumped by 33.8 percent in 1986 after a 46 percent increase in 1985.

Partly because of a high degree of competition which exists among insurers that market the multiple peril lines, all three lines have been generally unprofitable in recent years.

### Homeowners/Commercial Multiple Peril, 1977-1986

| | Homeowners | | | Commercial | | |
|---|---|---|---|---|---|---|
| Year | Premiums Written | Annual % Change | Combined Ratio* | Premiums Written | Annual % Change | Combined Ratio* |
| 1977 | $ 6,795,492,000 | | 91.6 | $4,970,508,000 | | 86.5 |
| 1978 | 7,792,293,000 | + 14.7% | 92.0 | 5,829,795,000 | + 17.3% | 84.1 |
| 1979 | 8,791,661,000 | + 12.8 | 98.6 | 6,666,822,000 | + 14.4 | 92.5 |
| 1980 | 9,820,753,000 | + 11.7 | 104.9 | 6,885,159,000 | + 3.3 | 98.0 |
| 1981 | 10,779,626,000 | + 9.8 | 101.4 | 6,869,978,000 | − 0.2 | 106.0 |
| 1982 | 11,746,998,000 | + 9.0 | 103.5 | 7,009,385,000 | + 2.0 | 115.6 |
| 1983 | 12,511,830,000 | + 6.5 | 103.2 | 7,292,720,000 | + 4.0 | 122.6 |
| 1984 | 13,212,762,000 | + 5.6 | 106.1 | 8,286,962,000 | + 13.6 | 134.5 |
| 1985 | 14,066,391,000 | + 6.5 | 111.3 | 12,096,578,000 | + 46.0 | 121.1 |
| 1986 | 15,222,027,000 | + 8.2 | 103.1 | 16,190,282,000 | + 33.8 | 96.0 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A. M. Best Company, Inc., Best's Aggregates & Averages

## Farmowners Multiple Peril, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| 1977 | $386,709,000 | | 97.4 |
| 1978 | 434,478,000 | + 12.4% | 96.1 |
| 1979 | 518,569,000 | + 19.4 | 93.2 |
| 1980 | 554,759,000 | + 7.0 | 112.0 |
| 1981 | 619,889,000 | + 11.7 | 111.2 |
| 1982 | 668,991,000 | + 7.9 | 120.0 |
| 1983 | 691,553,000 | + 3.4 | 111.4 |
| 1984 | 729,153,000 | + 5.4 | 119.4 |
| 1985 | 769,915,000 | + 5.6 | 112.3 |
| 1986 | 828,365,000 | + 7.6 | 108.6 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A. M. Best Company, Inc., Best's Aggregates & Averages.

## Crop-Hail Insurance

Hail storms, which occur most frequently in the Midwest, often destroy millions of dollars worth of crops. Crop-hail insurance provides financial protection against damage resulting from hail or other perils.

The crop-hail insurance industry in 1986 experienced a sharp drop in premium volume (15.2 percent) for the second consecutive year. Industry sources attributed the decline to a depressed farm economy and to the federal government's Conservation Reserve Program which effectively has removed millions of acres of cropland from production.

Loss ratios rose in 1986, largely as a result of a series of hail storms which swept through the central plains states late in the season, causing millions of dollars of crop damage. Hardest hit were the big crop-hail premium volume states of North Dakota, Nebraska, South Dakota and Texas.

The industry wrote an additional $303 million in multiple peril crop insurance in 1986, down from the $322 million written in 1985. Private insurers have offered this "all-risk" coverage, which is reinsured by the Federal Crop Insurance Corporation (FCIC), since 1981. The industry and the FCIC experienced a loss ratio in excess of 150 percent on this business, due in large part to a severe drought in the Southeast.

## Crop-Hail Insurance, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| 1977 | $338,963,000 | | 105.4 |
| 1978 | 349,782,000 | + 3.2% | 111.1 |
| 1979 | 394,666,000 | + 12.8 | 92.4 |
| 1980 | 415,368,000 | + 5.2 | 133.3 |
| 1981 | 502,503,000 | + 21.0 | 102.1 |
| 1982 | 531,570,000 | + 5.8 | 82.4 |
| 1983 | 443,838,000 | - 16.5 | 83.9 |
| 1984 | 508,744,000 | + 14.6 | 73.6 |
| 1985 | 447,065,000 | - 12.1 | 91.7 |
| 1986 | 379,106,000 | - 15.2 | 98.7 |

*Combined loss and expense ratios are estimates based on expenses reported by members and subscribers of the Crop-Hail Insurance Actuarial Association.

Source: Crop-Hail Insurance Actuarial Association.

## General Liability Insurance

General liability insurance provides protection against claims arising from injuries to others, or damage to property of others, and for which the insured person is held responsible because of ownership of property, a manufacturing or contracting operation, the sale or distribution of products, the operation of elevators and the like, as well as professional services. The general liability line does not cover injuries or damages growing out of automobile accidents, which must be insured separately.

Sharp increases in the number of lawsuits and the average size of claims in recent years, particularly against doctors and other professional people and product manufacturers, have helped to generate a continuing need for the financial protection afforded by general liability insurance. Although liability coverage is included in both commercial and homeowners "package" policies, the premium volume for the general liability line alone rose steadily for many years. Underwriting profits in 1977 and 1978, however, created a competitive market which brought down the cost of general liability insurance. This development, in turn, contributed to a slowdown in the premium growth rate in 1978 and 1979 and to a decline in premium volume in each of the next three years. However, mounting losses touched off a need for increases in premium rate levels, which in turn have contributed to sharp increases in the premium volume in each of the last two years.

**Medical Malpractice:** Medical malpractice insurance premiums were included in the general liability totals through 1974, but have been reported separately since that time. A proliferation of insurance claims and lawsuits against hospitals, doctors and other medical practitioners has not only generated a heavy demand for medical malpractice insurance in recent years, but has contributed to heavy underwriting losses over the last several years.

### General Liability/Medical Malpractice, 1977-1986

| | General Liability | | | Medical Malpractice | | |
|---|---|---|---|---|---|---|
| Year | Premiums Written | Annual % Change | Combined Ratio* | Premiums Written | Annual % Change | Combined Ratio* |
| 1977 | $ 5,845,075,000 | | 99.6 | $1,247,798,000 | | 92.9 |
| 1978 | 6,490,064,000 | +11.0% | 96.9 | 1,215,789,000 | − 2.6% | 102.6 |
| 1979 | 6,612,474,000 | + 1.9 | 97.6 | 1,204,326,000 | − 0.9 | 112.6 |
| 1980 | 6,414,678,000 | − 3.0 | 106.6 | 1,275,603,000 | + 5.9 | 128.2 |
| 1981 | 6,046,292,000 | − 5.7 | 115.3 | 1,338,299,000 | + 4.9 | 135.7 |
| 1982 | 5,658,459,000 | − 6.2 | 128.6 | 1,490,270,000 | +11.4 | 149.3 |
| 1983 | 5,673,295,000 | + 0.2 | 137.6 | 1,568,001,000 | + 5.2 | 150.1 |
| 1984 | 6,479,268,000 | +14.1 | 151.1 | 1,774,754,000 | +13.2 | 161.1 |
| 1985 | 11,544,152,000 | +78.2 | 145.3 | 2,769,230,000 | +56.0 | 166.0 |
| 1986 | 19,364,658,000 | +67.7 | 116.5 | 3,491,905,000 | +26.1 | 138.6 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages.

## Workers' Compensation Insurance

Workers' compensation insurance is designed to provide for the cost of medical care, rehabilitation and lost wages for injured employees and death benefits for the dependents of persons killed in work-related accidents. The scope of this coverage has broadened considerably in recent years, in large measure because of improvements in state laws to meet performance standards recommended in 1972 by the National Commission on State Workmen's Compensation Laws. Many states have taken action not only to expand benefits but also to make the coverage applicable to classifications of employees not previously covered.

About nine out of 10 people in the nation's work force have the protection of workers' compensation insurance, which today is compulsory for nearly all employees in all but three states, New Jersey, South Carolina and Texas. Even in those states, however, most businesses provide the coverage in order to limit their risk of negligence suits.

With the recession of recent years and a continuing high rate of unemployment held to be the main contributing factors, premium growth was uncharacteristically slow in the early '80s before rising by 12.8 percent in 1985 and by 19.8 percent in 1986.

Among the incentives offered to employers by workers' compensation insurers to develop and implement effective safety programs is the practice of returning premium dollars at the end of each year to companies with a favorable loss experience. Workers' compensation insurers account for a large part of the dividends returned to policyholders by property/casualty insurers each year with the result that the line has been generally unprofitable for many years despite combined loss and expense ratios which have been less than 100.0 in five of the last nine years. In 1986 alone, dividends to policyholders amounted to about 7.5 percent of premiums earned by workers' compensation insurers.

### Workers' Compensation Insurance, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| 1977 | $ 9,357,399,000 | | 103.5 |
| 1978 | 11,300,144,000 | + 20.8% | 99.4 |
| 1979 | 13,164,144,000 | + 16.5 | 96.4 |
| 1980 | 14,238,247,000 | + 8.2 | 93.4 |
| 1981 | 14,616,297,000 | + 2.7 | 94.1 |
| 1982 | 13,945,256,000 | − 4.6 | 94.0 |
| 1983 | 14,005,293,000 | + 0.4 | 101.9 |
| 1984 | 15,107,292,000 | + 7.9 | 112.0 |
| 1985 | 17,047,548,000 | + 12.8 | 109.5 |
| 1986 | 20,431,215,000 | + 19.8 | 113.5 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages

## Surety and Fidelity

Surety bonds, including contract, license and permit, court and fiduciary bonds, provide for monetary compensation should there be a failure to perform certain acts — such as the proper fulfillment of a construction contract — within a stated period. Surety bond premiums declined sharply in 1986, partly because of the separation of the surety and financial guaranty lines for the first time.

Fidelity bonds, a suretyship product, are a form of protection against losses caused by dishonest or fraudulent acts of employees. In 1986, the premium volume rose by some 36.2 percent.

### Surety and Fidelity, 1977-1986

| | Surety | | | Fidelity | | |
|---|---|---|---|---|---|---|
| Year | Premiums Written | Annual % Change | Combined Ratio* | Premiums Written | Annual % Change | Combined Ratio* |
| 1977 | $ 663,083,000 | | 96.4 | $291,114,000 | | 110.4 |
| 1978 | 759,480,000 | + 14.5% | 96.9 | 316,703,000 | + 8.8% | 105.4 |
| 1979 | 805,142,000 | + 6.0 | 90.8 | 350,046,000 | + 10.5 | 87.9 |
| 1980 | 887,577,000 | + 10.2 | 105.7 | 360,063,000 | + 2.9 | 93.2 |
| 1981 | 970,498,000 | + 9.3 | 86.1 | 380,749,000 | + 5.7 | 98.9 |
| 1982 | 1,094,117,000 | + 12.7 | 89.4 | 360,041,000 | − 5.4 | 113.5 |
| 1983 | 1,272,198,000 | + 16.3 | 87.5 | 376,651,000 | + 4.6 | 122.3 |
| 1984 | 1,564,934,000 | + 23.0 | 95.6 | 431,719,000 | + 14.6 | 118.4 |
| 1985 | 2,264,435,000 | + 44.7 | 112.5 | 588,245,000 | + 36.3 | 94.9 |
| 1986 | 1,315,263,000 | − 41.9 | 125.4 | 801,012,000 | + 36.2 | 75.8 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages.

## Burglary and Theft Insurance

The burglary lines include coverages for loss of property (including money and securities) due to burglary, robbery and larceny, and loss of money and securities due to destruction or disappearance. Much of this coverage is now included in package policies. Premium volume declined slightly in 1986.

### Burglary and Theft, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| 1977 | $129,538,000 | | 71.3 |
| 1978 | 132,855,000 | + 2.6% | 70.5 |
| 1979 | 140,071,000 | + 5.4 | 78.1 |
| 1980 | 135,727,000 | − 3.1 | 88.8 |
| 1981 | 127,534,000 | − 6.0 | 92.9 |
| 1982 | 114,905,000 | − 9.9 | 94.5 |
| 1983 | 105,825,000 | − 7.9 | 87.0 |
| 1984 | 109,005,000 | + 3.0 | 80.0 |
| 1985 | 122,259,000 | + 12.2 | 73.1 |
| 1986 | 121,055,000 | − 1.0 | 69.1 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages.

## Boiler and Machinery Insurance

This specialized line covers a wide variety of power-producing equipment. Insurance companies place considerable emphasis on inspection and engineering techniques in the interest of safety. The growth of automation in industrial processes and the increased size and sophistication of production facilities have heightened the need for loss-preventive services. The boiler and machinery premium volume dropped by some 14.1 percent in 1986 after reaching record highs in the three preceding years.

### Boiler and Machinery, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| 1977 | $216,772,000 | | 87.3 |
| 1978 | 255,873,000 | + 18.0% | 84.5 |
| 1979 | 282,795,000 | + 10.5 | 87.5 |
| 1980 | 292,624,000 | + 3.5 | 90.2 |
| 1981 | 298,320,000 | + 1.9 | 92.4 |
| 1982 | 292,845,000 | − 1.8 | 100.3 |
| 1983 | 355,861,000 | + 21.5 | 107.1 |
| 1984 | 439,108,000 | + 23.4 | 117.8 |
| 1985 | 618,358,000 | + 40.8 | 79.8 |
| 1986 | 531,319,000 | − 14.1 | 93.0 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages

## Glass Insurance

Architectural demands, merchandising trends and decorative constructional functions have contributed to an ever-increasing use of glass and a continuing need for glass insurance. With glass coverage included in many of the popular multiple peril package policies, premium volume for glass insurance generally has been on the decline for several years.

### Glass, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| 1977 | $34,298,000 | | 95.2 |
| 1978 | 34,951,000 | + 1.9% | 99.3 |
| 1979 | 33,457,000 | − 4.3 | 103.3 |
| 1980 | 32,248,000 | − 3.6 | 110.3 |
| 1981 | 31,085,000 | − 3.6 | 108.8 |
| 1982 | 28,814,000 | − 7.3 | 105.2 |
| 1983 | 27,092,000 | − 6.0 | 105.3 |
| 1984 | 27,842,000 | + 2.8 | 87.6 |
| 1985 | 25,492,000 | − 8.4 | 83.9 |
| 1986 | 26,608,000 | + 4.4 | 68.0 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Best's Aggregates & Averages

## Inland Marine Insurance

Inland marine insurance, originally developed to cover goods in transit by other than ocean vessels, today covers such instruments of transportation as bridges and tunnels as well as personal effects, personal property, jewelry, furs, fine arts and many other properties.

Inland marine premium volume continues to increase each year despite the diversion of personal property coverages to homeowners and other package forms.

### Inland Marine, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| **1977** | $1,606,518,000 | | 85.7 |
| **1978** | 1,867,189,000 | + 16.2% | 86.5 |
| **1979** | 2,061,306,000 | + 10.4 | 94.9 |
| **1980** | 2,291,294,000 | + 11.2 | 102.1 |
| **1981** | 2,427,692,000 | + 6.0 | 102.1 |
| **1982** | 2,509,999,000 | + 3.4 | 102.1 |
| **1983** | 2,649,461,000 | + 5.6 | 102.8 |
| **1984** | 3,017,099,000 | + 13.9 | 106.0 |
| **1985** | 3,672,227,000 | + 21.7 | 95.8 |
| **1986** | 3,898,591,000 | + 6.2 | 81.6 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages

## Ocean Marine Insurance

The American ocean marine hull and cargo market has gradually expanded in volume and capacity. Its growth reflects not only greater international trade but the increase in ownership of pleasure craft along the coastal and inland waterways. Premium volume in the ocean marine insurance line has been increasing moderately for several years.

### Ocean Marine, 1977-1986

| Year | Premiums Written | Annual % Change | Combined Ratio* |
|---|---|---|---|
| **1977** | $ 971,456,000 | | 101.2 |
| **1978** | 1,000,203,000 | + 3.0% | 100.3 |
| **1979** | 1,008,816,000 | + 0.9 | 108.5 |
| **1980** | 1,064,798,000 | + 5.5 | 115.0 |
| **1981** | 1,126,766,000 | + 5.8 | 110.3 |
| **1982** | 1,100,596,000 | − 2.3 | 112.9 |
| **1983** | 1,096,231,000 | − 0.4 | 112.6 |
| **1984** | 1,155,131,000 | + 5.4 | 112.7 |
| **1985** | 1,176,528,000 | + 1.9 | 104.4 |
| **1986** | 1,224,729,000 | + 4.1 | 100.6 |

*Before dividends to policyholders. The combined ratio measures the relationship between premiums and insurance companies' expenses and claim losses. A combined ratio above 100 means that for every $100 paid in premiums, more than $100 went to expenses and claim losses.

Source: A.M. Best Company, Inc., Best's Aggregates & Averages

## Nuclear Insurance

Insurance against losses resulting from nuclear accidents is provided by three insurance company groups: the American Nuclear Insurers, the Mutual Atomic Energy Liability Underwriters and the MAERP Reinsurance Association. Coverage against nuclear losses through the pools has been available since 1957.

Together the nuclear pools make available to any nuclear facility:

- Up to $160 million of liability coverage (bodily injury and property damage combined) and $30 million of contingent liability. These coverages provide financial protection for the general public.
- Up to $620 million of insurance to cover damage to the property of nuclear facility operators on an "all-risk" basis.

The nuclear pools' premiums have risen over the years along with the growth of the nuclear industry. An estimated $56.3 million in liability premiums in 1986 represented an increase of nearly 34 percent over the 1985 total. Property premiums declined by just over 2 percent in 1986, however. The drop was attributed partly to a favorable overall experience of the pools' property book of business and continued competitive pressure from the offshore utility mutual.

Under the pools' Industry Credit Rating Plan, approximately 70 percent of each year's liability premium is reserved for potential claims or to be returned to insureds based upon good experience over a 10-year period. In 1986 more than $4.2 million was refunded to those insureds having policies in effect in 1976. This brings to $38.1 million the total amount refunded since 1967.

The following table shows the premium income since 1957 for the nuclear insurance domestic liability and property insurance pools.

### Nuclear Insurance Premiums, 1957-1986

| Year | Liability Premium | % Annual Change, 1977-1986 | Property Premium | % Annual Change, 1977-1986 |
|---|---|---|---|---|
| 1957-1975 | $74,006,812* | | $117,094,889* | |
| 1976 | 15,351,874 | | 25,520,449 | |
| 1977 | 17,532,802 | + 14.2 | 28,773,664 | + 12.7 |
| 1978 | 19,184,000 | + 9.4 | 30,702,774 | + 6.7 |
| 1979 | 20,316,309 | + 5.9 | 40,199,176 | + 30.9 |
| 1980 | 23,002,157 | + 13.2 | 61,353,439 | + 52.6 |
| 1981 | 27,521,486 | + 19.6 | 74,263,992 | + 20.0 |
| 1982 | 30,255,952 | + 9.9 | 98,826,043 | + 33.1 |
| 1983 | 27,362,869 | − 9.6 | 111,680,839 | + 13.0 |
| 1984 | 35,543,147 | + 29.9 | 131,798,114 | + 18.0 |
| 1985 | 42,054,000 | + 18.3 | 143,880,947 | + 9.2 |
| 1986 | 56,331,000** | + 33.9 | 140,882,556 | − 2.1 |

*Represents gross written premium from inception to Nov. 30, 1975.

**Estimated.

Source: American Nuclear Insurers

## Direct Written Premiums by State

Direct premiums written by property and casualty insurance companies in 1986 totaled about $184.8 billion, an increase of 20.7 percent over the 1985 total. Data provided by A.M. Best Company (representing about 98 percent of the nation's total insurance market) provided the basis for the tabulations that follow of premiums by state and by line.

The direct written premium total included $181,840,369,000 in premiums for the various property and casualty coverages and $2,997,213,000 in accident and health insurance premiums.

The totals differ slightly from the premium totals shown elsewhere in Insurance Facts because the tabulations presented here are based on direct premiums written and those used elsewhere are based on net premiums written. Direct written premiums are the amounts actually paid by the policyholders. Net written premiums reflect additional exchanges of premiums among insurance companies which contract, through a process known as reinsurance, to absorb specified portions of each other's losses.

### Direct Written Premiums by State, 1986 (000 omitted)

| State | All Lines Total | State | All Lines Total |
|---|---|---|---|
| Alabama | $ 2,343,240 | Montana | $ 508,806 |
| Alaska | 661,207 | Nebraska | 1,048,363 |
| Arizona | 2,567,476 | Nevada | 748,591 |
| Arkansas | 1,344,835 | New Hampshire | 945,096 |
| California | 26,498,557 | New Jersey | 8,156,061 |
| Colorado | 2,468,521 | New Mexico | 923,079 |
| Connecticut | 3,684,088 | New York | 16,327,817 |
| Delaware | 568,388 | North Carolina | 3,417,842 |
| District of Columbia | 629,429 | North Dakota | 421,241 |
| Florida | 9,150,027 | Ohio | 5,921,066 |
| Georgia | 4,488,385 | Oklahoma | 2,174,355 |
| Hawaii | 903,352 | Oregon | 1,928,472 |
| Idaho | 585,119 | Pennsylvania | 9,222,089 |
| Illinois | 9,023,651 | Rhode Island | 812,240 |
| Indiana | 3,179,845 | South Carolina | 1,940,983 |
| Iowa | 1,739,654 | South Dakota | 396,722 |
| Kansas | 1,761,643 | Tennessee | 2,944,263 |
| Kentucky | 1,993,271 | Texas | 12,407,992 |
| Louisiana | 3,190,103 | Utah | 828,115 |
| Maine | 816,259 | Vermont | 416,854 |
| Maryland | 3,654,112 | Virginia | 3,716,207 |
| Massachusetts | 5,652,449 | Washington | 2,799,547 |
| Michigan | 7,349,845 | West Virginia | 846,799 |
| Minnesota | 3,462,949 | Wisconsin | 2,986,120 |
| Mississippi | 1,409,297 | Wyoming | 290,571 |
| Missouri | 3,585,590 | | |
| | | Countrywide | $184,837,582 |

Source: A.M. Best Company, Inc., Best's Executive Data Service

## Direct Written Premiums by Line, 1986 (000 omitted)

| State | Pvt. Pass. Automobile Liability | Commercial Automobile Liability | Pvt. Pass. Automobile Phys. Dmg. | Commercial Automobile Phys. Dmg. | Homeowners | Farmowners |
|---|---|---|---|---|---|---|
| Alabama | $ 308,271 | $ 157,584 | $ 390,469 | $ 76,523 | $ 261,184 | $ 21,315 |
| Alaska | 76,993 | 33,915 | 58,109 | 9,754 | 38,678 | 7 |
| Arizona | 574,103 | 184,884 | 330,638 | 65,613 | 197,063 | 5,013 |
| Arkansas | 202,258 | 111,060 | 198,024 | 47,541 | 151,272 | 6,437 |
| California | 5,377,783 | 1,436,773 | 3,270,511 | 535,946 | 1,925,471 | 69,080 |
| Colorado | 515,566 | 141,775 | 375,854 | 72,807 | 242,171 | 15,585 |
| Connecticut | 684,775 | 240,361 | 430,289 | 88,165 | 295,834 | 1,044 |
| Delaware | 103,614 | 35,165 | 69,343 | 13,707 | 38,505 | 2,016 |
| Dist. of Col. | 74,802 | 23,959 | 49,633 | 5,657 | 32,255 | — |
| Florida | 2,010,113 | 699,085 | 1,157,696 | 242,854 | 717,728 | 6,607 |
| Georgia | 902,838 | 328,538 | 669,182 | 125,853 | 362,778 | 26,569 |
| Hawaii | 182,012 | 51,328 | 89,251 | 14,751 | 52,302 | 28 |
| Idaho | 102,521 | 39,340 | 80,267 | 23,609 | 46,471 | 15,021 |
| Illinois | 1,339,253 | 497,706 | 1,169,223 | 203,944 | 659,982 | 56,902 |
| Indiana | 549,268 | 228,974 | 496,952 | 132,829 | 343,467 | 51,225 |
| Iowa | 249,297 | 115,827 | 210,704 | 61,902 | 131,068 | 25,616 |
| Kansas | 265,289 | 110,678 | 248,707 | 65,028 | 174,644 | 35,206 |
| Kentucky | 365,487 | 124,554 | 295,476 | 71,027 | 175,856 | 44,382 |
| Louisiana | 608,483 | 249,671 | 378,288 | 69,881 | 336,890 | 1,351 |
| Maine | 108,838 | 58,014 | 104,584 | 29,328 | 80,295 | 1,419 |
| Maryland | 952,972 | 251,940 | 446,115 | 86,712 | 248,151 | 8,361 |
| Massachusetts | 999,530 | 323,496 | 854,265 | 178,818 | 542,738 | 781 |
| Michigan | 1,130,012 | 302,276 | 1,458,442 | 206,834 | 610,263 | 48,478 |
| Minnesota | 629,174 | 207,015 | 364,431 | 83,659 | 296,768 | 22,118 |
| Mississippi | 188,734 | 102,244 | 210,178 | 59,741 | 193,352 | 771 |
| Missouri | 545,259 | 218,691 | 536,092 | 101,014 | 326,733 | 39,649 |
| Montana | 90,099 | 43,682 | 69,624 | 24,901 | 45,319 | 14,114 |
| Nebraska | 141,213 | 73,053 | 132,513 | 41,586 | 86,347 | 21,979 |
| Nevada | 192,806 | 45,141 | 107,647 | 16,926 | 70,975 | 2,188 |
| New Hampshire | 149,658 | 65,108 | 144,689 | 35,396 | 90,459 | 335 |
| New Jersey | 1,840,791 | 712,052 | 1,007,952 | 221,616 | 583,073 | 1,108 |
| New Mexico | 165,017 | 64,667 | 144,341 | 30,847 | 80,671 | 5,895 |
| New York | 2,598,816 | 1,121,335 | 1,712,290 | 360,894 | 1,230,849 | 10,778 |
| North Carolina | 692,223 | 262,139 | 554,238 | 106,689 | 336,353 | 18,235 |
| North Dakota | 59,227 | 25,734 | 56,600 | 16,553 | 29,334 | 15,306 |
| Ohio | 1,207,944 | 395,652 | 981,049 | 200,308 | 597,995 | 33,225 |
| Oklahoma | 347,281 | 139,224 | 341,983 | 73,440 | 278,408 | 36,682 |
| Oregon | 394,818 | 129,730 | 244,118 | 62,170 | 140,824 | 18,096 |
| Pennsylvania | 2,042,124 | 652,396 | 1,058,324 | 231,334 | 651,429 | 20,210 |
| Rhode Island | 134,268 | 48,852 | 117,905 | 20,071 | 77,804 | 52 |
| South Carolina | 459,419 | 128,505 | 318,265 | 50,259 | 192,209 | 1,804 |
| South Dakota | 51,986 | 30,261 | 51,992 | 19,110 | 24,642 | 10,824 |
| Tennessee | 445,416 | 200,732 | 456,142 | 90,303 | 290,851 | 29,482 |
| Texas | 1,824,755 | 756,707 | 1,737,838 | 327,625 | 1,227,403 | 38,550 |
| Utah | 158,365 | 66,409 | 135,956 | 28,861 | 71,594 | 2,413 |
| Vermont | 54,180 | 28,554 | 59,307 | 15,927 | 43,575 | 6,098 |
| Virginia | 829,422 | 266,167 | 535,684 | 103,000 | 281,965 | 13,057 |
| Washington | 636,074 | 191,292 | 385,811 | 75,203 | 271,377 | 20,820 |
| West Virginia | 189,219 | 57,417 | 171,145 | 32,053 | 91,808 | 2,825 |
| Wisconsin | 499,845 | 201,004 | 389,726 | 97,414 | 224,638 | 45,894 |
| Wyoming | 41,958 | 20,709 | 52,819 | 12,340 | 31,582 | 5,502 |
| Totals | $34,294,169 | $12,001,374 | $24,910,676 | $4,968,324 | $15,533,404 | $880,454 |

Source: A. M. Best Company, Inc., Best's Executive Data Service

## Direct Written Premiums by Line, 1986 (000 omitted)

| State | Commercial Multi-Peril | Workers' Compensation | Medical Malpractice | Other Liability | Fire | Allied Lines |
|---|---|---|---|---|---|---|
| Alabama | $ 200,699 | $ 302,268 | $ 52,553 | $ 267,024 | $ 73,805 | $ 33,232 |
| Alaska | 79,320 | 149,723 | 11,783 | 75,210 | 20,340 | 4,301 |
| Arizona | 300,261 | 227,541* | 90,639 | 319,266 | 37,262 | 29,280 |
| Arkansas | 120,831 | 169,351 | 16,425 | 115,721 | 55,337 | 31,609 |
| California | 2,943,339 | 4,284,983* | 645,789 | 3,189,239 | 467,449 | 234,476 |
| Colorado | 271,464 | 217,327* | 22,644 | 293,345 | 37,673 | 41,235 |
| Connecticut | 363,134 | 544,712 | 60,577 | 614,740 | 64,303 | 36,430 |
| Delaware | 36,938 | 81,265 | 20,778 | 77,295 | 9,895 | 5,537 |
| Dist. of Col. | 65,667 | 108,511 | 27,238 | 119,248 | 10,125 | 4,497 |
| Florida | 963,458 | 1,027,969 | 177,437 | 927,388 | 145,496 | 191,137 |
| Georgia | 368,338 | 574,516 | 108,787 | 457,139 | 107,935 | 55,290 |
| Hawaii | 63,904 | 230,514 | 15,571 | 117,092 | 17,895 | 9,340 |
| Idaho | 60,190 | 67,110* | 11,997 | 57,514 | 14,422 | 20,552 |
| Illinois | 885,966 | 1,258,179 | 239,571 | 1,482,376 | 174,754 | 151,647 |
| Indiana | 356,627 | 238,088 | 31,124 | 362,956 | 72,383 | 50,722 |
| Iowa | 151,667 | 211,989 | 42,956 | 238,677 | 41,779 | 115,714 |
| Kansas | 150,530 | 208,150 | 31,179 | 198,282 | 39,137 | 66,033 |
| Kentucky | 167,514 | 241,843 | 42,262 | 196,629 | 56,180 | 26,673 |
| Louisiana | 205,472 | 422,848 | 54,809 | 341,984 | 112,333 | 83,991 |
| Maine | 83,193 | 167,327 | 25,941 | 70,999 | 21,098 | 7,778 |
| Maryland | 299,509 | 504,506* | 114,649 | 401,816 | 52,315 | 24,849 |
| Massachusetts | 560,898 | 874,587 | 24,723 | 741,902 | 119,121 | 47,931 |
| Michigan | 646,610 | 741,795* | 201,878 | 1,436,248 | 112,570 | 43,267 |
| Minnesota | 323,754 | 543,450 | 84,836 | 435,632 | 58,633 | 102,153 |
| Mississippi | 78,164 | 183,648 | 19,536 | 117,648 | 77,424 | 50,197 |
| Missouri | 353,926 | 388,712 | 87,063 | 471,501 | 78,006 | 63,938 |
| Montana | 53,015 | 40,839* | 11,503 | 45,621 | 14,034 | 24,188 |
| Nebraska | 97,261 | 104,593 | 13,097 | 119,417 | 24,842 | 78,491 |
| Nevada | 110,426 | 3,366* | 20,957 | 87,646 | 17,118 | 8,514 |
| New Hampshire | 95,343 | 144,492 | 10,805 | 117,909 | 19,951 | 8,421 |
| New Jersey | 909,577 | 833,453 | 201,626 | 1,122,124 | 117,872 | 58,670 |
| New Mexico | 83,965 | 167,218 | 3,932 | 82,601 | 15,919 | 14,193 |
| New York | 2,074,278 | 1,138,658* | 660,274 | 3,025,781 | 336,358 | 111,458 |
| North Carolina | 276,383 | 345,263 | 71,901 | 322,577 | 90,217 | 63,664 |
| North Dakota | 38,246 | 835* | 17,345 | 40,476 | 12,876 | 65,116 |
| Ohio | 667,462 | 29,307* | 204,838 | 900,520 | 151,046 | 65,754 |
| Oklahoma | 178,833 | 264,065* | 8,950 | 207,473 | 62,974 | 55,229 |
| Oregon | 203,030 | 272,251* | 40,759 | 199,924 | 43,904 | 24,508 |
| Pennsylvania | 814,425 | 1,409,847* | 216,779 | 1,227,328 | 186,334 | 72,564 |
| Rhode Island | 74,997 | 134,548 | 4,020 | 116,087 | 14,910 | 7,419 |
| South Carolina | 153,506 | 241,505 | 8,020 | 143,764 | 63,004 | 37,000 |
| South Dakota | 41,897 | 42,383 | 10,727 | 36,196 | 10,256 | 26,859 |
| Tennessee | 263,711 | 355,266 | 147,089 | 306,017 | 90,096 | 33,767 |
| Texas | 795,106 | 2,195,759 | 120,404 | 1,461,313 | 411,606 | 277,328 |
| Utah | 93,526 | 48,857* | 12,496 | 95,553 | 15,803 | 8,676 |
| Vermont | 52,615 | 57,126 | 10,691 | 50,444 | 11,335 | 3,788 |
| Virginia | 322,821 | 471,462 | 82,523 | 381,237 | 81,196 | 39,699 |
| Washington | 322,514 | 40,357* | 77,367 | 351,015 | 68,923 | 41,328 |
| West Virginia | 70,101 | 5,974* | 33,644 | 77,572 | 30,232 | 10,390 |
| Wisconsin | 269,816 | 448,315 | 31,919 | 389,673 | 58,501 | 39,335 |
| Wyoming | 42,137 | 4,019* | 6,636 | 28,052 | 8,966 | 6,352 |
| Totals | $18,206,367 | $22,770,672* | $4,291,245 | $24,063,095 | $4,035,939 | $2,714,518 |

**Does not include premiums written by state workers' compensation funds.*

Source: A. M. Best Company, Inc., Best's Executive Data Service

## Direct Written Premiums by Line, 1986 (000 omitted)

| State | Inland Marine | Ocean Marine | Surety | Fidelity | Burglary & Theft | Boiler & Machinery |
|---|---|---|---|---|---|---|
| Alabama | $ 66,097 | $ 11,704 | $ 20,543 | $ 8,684 | $ 1,502 | $ 4,343 |
| Alaska | 25,617 | 9,531 | 13,149 | 1,864 | 113 | 1,823 |
| Arizona | 53,031 | 2,498 | 36,059 | 6,025 | 967 | 4,896 |
| Arkansas | 47,914 | 2,204 | 10,969 | 5,072 | 635 | 4,528 |
| California | 744,192 | 107,471 | 222,914 | 101,399 | 14,611 | 41,494 |
| Colorado | 67,829 | 2,641 | 30,276 | 10,718 | 1,663 | 6,846 |
| Connecticut | 104,239 | 20,607 | 17,084 | 18,453 | 2,833 | 9,544 |
| Delaware | 17,531 | 3,354 | 20,288 | 2,524 | 396 | 2,154 |
| Dist. of Col. | 17,163 | 2,544 | 17,392 | 12,280 | 988 | 3,256 |
| Florida | 258,296 | 60,030 | 90,254 | 33,469 | 5,579 | 17,281 |
| Georgia | 132,499 | 13,332 | 34,835 | 21,290 | 2,903 | 10,524 |
| Hawaii | 12,595 | 4,750 | 10,158 | 2,922 | 469 | 1,666 |
| Idaho | 17,926 | 552 | 5,681 | 2,018 | 148 | 1,993 |
| Illinois | 247,360 | 36,570 | 76,764 | 58,290 | 6,492 | 32,119 |
| Indiana | 79,465 | 4,238 | 24,101 | 14,793 | 1,538 | 12,481 |
| Iowa | 44,969 | 1,167 | 12,124 | 7,980 | 1,015 | 5,809 |
| Kansas | 49,762 | 1,114 | 15,312 | 8,248 | 935 | 5,490 |
| Kentucky | 57,687 | 5,325 | 20,639 | 8,268 | 1,233 | 6,706 |
| Louisiana | 82,853 | 68,912 | 26,570 | 8,779 | 1,517 | 14,088 |
| Maine | 20,765 | 8,107 | 5,940 | 2,012 | 427 | 3,075 |
| Maryland | 77,482 | 15,221 | 34,298 | 11,845 | 2,767 | 12,987 |
| Massachusetts | 150,086 | 40,071 | 35,646 | 28,227 | 3,476 | 13,961 |
| Michigan | 137,018 | 23,331 | 32,523 | 24,232 | 2,837 | 16,118 |
| Minnesota | 94,023 | 12,991 | 26,861 | 16,008 | 2,123 | 10,723 |
| Mississippi | 47,419 | 3,725 | 13,158 | 4,971 | 1,257 | 3,990 |
| Missouri | 102,308 | 31,175 | 28,330 | 18,717 | 3,019 | 10,449 |
| Montana | 11,614 | 235 | 5,742 | 1,909 | 200 | 305 |
| Nebraska | 31,355 | 1,096 | 10,218 | 5,521 | 670 | 3,678 |
| Nevada | 18,772 | 840 | 10,614 | 2,871 | 1,409 | 1,729 |
| New Hampshire | 26,544 | 5,626 | 4,976 | 2,820 | 492 | 2,241 |
| New Jersey | 197,350 | 31,021 | 57,567 | 34,471 | 5,466 | 22,274 |
| New Mexico | 19,199 | 329 | 11,291 | 3,291 | 530 | 1,619 |
| New York | 475,734 | 455,481 | 115,865 | 211,664 | 18,417 | 39,906 |
| North Carolina | 100,488 | 12,010 | 25,820 | 16,269 | 2,691 | 10,206 |
| North Dakota | 11,036 | 142 | 5,256 | 1,825 | 214 | 2,533 |
| Ohio | 165,101 | 16,809 | 48,923 | 29,409 | 7,439 | 20,693 |
| Oklahoma | 64,287 | 6,160 | 18,628 | 8,801 | 1,400 | 7,104 |
| Oregon | 48,140 | 15,958 | 19,357 | 7,155 | 1,232 | 5,767 |
| Pennsylvania | 194,197 | 24,916 | 54,477 | 48,637 | 6,659 | 28,940 |
| Rhode Island | 18,307 | 9,718 | 5,721 | 4,895 | 497 | 2,187 |
| South Carolina | 51,213 | 4,879 | 16,932 | 3,906 | 513 | 4,760 |
| South Dakota | 9,388 | 49 | 4,681 | 1,631 | 246 | 1,342 |
| Tennessee | 78,479 | 9,693 | 24,829 | 13,677 | 1,837 | 7,255 |
| Texas | 391,502 | 145,608 | 127,038 | 39,676 | 6,151 | 36,523 |
| Utah | 19,621 | 974 | 11,447 | 4,368 | 382 | 2,111 |
| Vermont | 9,793 | 1,511 | 2,068 | 1,419 | 230 | 556 |
| Virginia | 95,627 | 16,214 | 38,560 | 13,266 | 2,511 | 12,621 |
| Washington | 101,407 | 54,364 | 38,279 | 12,572 | 1,756 | 8,891 |
| West Virginia | 21,624 | 1,536 | 9,536 | 3,592 | 684 | 3,688 |
| Wisconsin | 68,618 | 6,010 | 16,273 | 13,306 | 3,222 | 14,897 |
| Wyoming | 8,270 | 202 | 7,776 | 1,794 | 130 | 2,058 |
| Totals | $4,993,792 | $1,314,546 | $1,573,741 | $927,838 | $126,419 | $502,226 |

Source: A. M. Best Company, Inc., Best's Executive Data Service.

## Direct Written Premiums by Line, 1986 (000 omitted)

| State | Glass | Aircraft | Earthquake | Credit | Accident & Health | Miscellaneous |
|---|---|---|---|---|---|---|
| Alabama | $ 238 | $ 9,395 | $ 252 | $ 900 | $ 46,215 | $ 22,757 |
| Alaska | 8 | 23,581 | 1,388 | 4,409 | 1,526 | 11,048 |
| Arizona | 203 | 19,347 | 976 | 1,684 | 30,847 | 27,128 |
| Arkansas | 141 | 7,531 | 919 | 316 | 20,071 | 12,693 |
| California | 3,903 | 129,382 | 200,628 | 16,015 | 280,649 | 198,970 |
| Colorado | 293 | 15,748 | 761 | 1,273 | 46,768 | 22,033 |
| Connecticut | 311 | 25,985 | 1,755 | 2,020 | 22,446 | 28,423 |
| Delaware | 69 | 3,654 | 124 | 130 | 17,422 | 4,595 |
| Dist. of Col. | 42 | 9,809 | 120 | 67 | 33,730 | 6,984 |
| Florida | 1,287 | 50,083 | 2,014 | 4,267 | 152,512 | 114,935 |
| Georgia | 344 | 35,804 | 1,331 | 3,717 | 71,267 | 53,277 |
| Hawaii | 188 | 7,599 | 376 | 202 | 9,357 | 8,326 |
| Idaho | 55 | 5,230 | 214 | 335 | 8,626 | 2,919 |
| Illinois | 2,488 | 47,031 | 3,265 | 5,973 | 285,869 | 74,868 |
| Indiana | 387 | 15,276 | 1,072 | 1,651 | 78,196 | 22,007 |
| Iowa | 475 | 6,359 | 363 | 757 | 47,985 | 10,469 |
| Kansas | 302 | 18,239 | 294 | 897 | 45,430 | 14,079 |
| Kentucky | 307 | 8,079 | 1,542 | 456 | 27,266 | 47,264 |
| Louisiana | 227 | 20,893 | 389 | 1,070 | 42,346 | 35,349 |
| Maine | 61 | 3,139 | 178 | 311 | 7,229 | 5,499 |
| Maryland | 298 | 8,538 | 290 | 4,968 | 41,877 | 39,127 |
| Massachusetts | 1,174 | 14,003 | 2,016 | 5,391 | 45,221 | 40,017 |
| Michigan | 715 | 32,968 | 1,271 | 2,329 | 88,626 | 34,920 |
| Minnesota | 294 | 22,240 | 328 | 2,385 | 82,865 | 26,101 |
| Mississippi | 160 | 5,810 | 635 | 742 | 28,995 | 14,652 |
| Missouri | 415 | 28,387 | 5,161 | 2,771 | 101,052 | 37,792 |
| Montana | 30 | 3,750 | 122 | 32 | 6,699 | 847 |
| Nebraska | 196 | 5,420 | 166 | 308 | 36,531 | 12,589 |
| Nevada | 79 | 9,111 | 567 | 326 | 10,016 | 6,586 |
| New Hampshire | 81 | 3,025 | 924 | 560 | 9,789 | 4,513 |
| New Jersey | 1,255 | 46,688 | 1,183 | 4,754 | 69,466 | 58,148 |
| New Mexico | 81 | 5,561 | 334 | 99 | 11,130 | 7,676 |
| New York | 2,776 | 62,819 | 3,963 | 17,335 | 306,473 | 103,486 |
| North Carolina | 376 | 17,739 | 552 | 5,089 | 50,489 | 33,357 |
| North Dakota | 44 | 2,545 | 30 | 295 | 16,655 | 2,340 |
| Ohio | 1,095 | 28,667 | 2,019 | 3,011 | 99,596 | 54,991 |
| Oklahoma | 336 | 13,035 | 361 | 494 | 29,767 | 21,559 |
| Oregon | 257 | 14,417 | 953 | 1,648 | 20,849 | 16,172 |
| Pennsylvania | 903 | 30,061 | 1,416 | 4,509 | 116,480 | 67,257 |
| Rhode Island | 59 | 2,216 | 170 | 686 | 9,033 | 6,427 |
| South Carolina | 173 | 6,572 | 2,148 | 1,121 | 23,323 | 24,139 |
| South Dakota | 64 | 1,861 | 29 | 92 | 17,978 | 1,204 |
| Tennessee | 263 | 13,273 | 2,285 | 2,478 | 48,589 | 23,816 |
| Texas | 1,421 | 102,121 | 2,027 | 4,522 | 189,344 | 148,236 |
| Utah | 89 | 7,658 | 617 | 265 | 24,156 | 9,598 |
| Vermont | 47 | 1,285 | 97 | 138 | 3,132 | 1,776 |
| Virginia | 520 | 16,829 | 946 | 3,294 | 49,097 | 54,296 |
| Washington | 478 | 25,827 | 3,090 | 433 | 32,469 | 30,451 |
| West Virginia | 287 | 2,870 | 80 | 443 | 16,262 | 7,852 |
| Wisconsin | 666 | 13,537 | 193 | 1,544 | 125,964 | 23,566 |
| Wyoming | 34 | 2,402 | 99 | 38 | 4,533 | 1,274 |
| Totals | $25,993 | $1,013,398 | $252,030 | $118,548 | $2,997,213 | $1,638,388 |

Source: A. M. Best Company, Inc., Best's Executive Data Service

## Premium Taxes

Insurance companies—including life, health and property/casualty companies--paid more than $5.5 billion in premium taxes to the 50 states and the District of Columbia in 1986—an increase of about 21 percent over the 1985 total. Approximately 47 percent of this amount was paid by property/casualty companies.

Premium taxes are taxes imposed on gross premiums or adjusted gross premiums, and as such amount to an additional form of taxation on policyholders. Additional payments are made to states for licenses and fees, property taxes, sales and use taxes, unemployment compensation taxes, and in a few states, income and franchise taxes. Premium taxes accounted for about 2.4 percent of all taxes collected by the states during 1986.

The Bureau of the Census said the broad category of sales and gross receipts taxes was by far the largest source of state tax revenue in fiscal 1986, accounting for 49.3 percent of all state tax collections in that year. Individual income taxes, at 30 percent, were the second largest source.

### Premium Taxes by State, 1986

| | | | |
|---|---|---|---|
| Alabama | $107,212,000 | Missouri | $ 122,457,000 |
| Alaska | 19,490,000 | Montana | 23,758,000 |
| Arizona | 67,936,000 | Nebraska | 43,128,000 |
| Arkansas | 44,115,000 | Nevada | 32,924,000 |
| California | 839,467,000 | New Hampshire | 24,690,000 |
| Colorado | 52,997,000 | New Jersey | 124,676,000 |
| Connecticut | 112,768,000 | New Mexico | 44,129,000 |
| Delaware | 19,695,000 | New York | 371,738,000 |
| District of Columbia | 21,326,000 | North Carolina | 135,000,000 |
| Florida | 225,188,000 | North Dakota | 12,994,000 |
| Georgia | 99,042,000 | Ohio | 196,393,000 |
| Hawaii | 34,806,000 | Oklahoma | 112,543,000 |
| Idaho | 23,625,000 | Oregon | 46,907,000 |
| Illinois | 145,722,000 | Pennsylvania | 259,780,000 |
| Indiana | 84,318,000 | Rhode Island | 22,850,000 |
| Iowa | 72,764,000 | South Carolina | 61,290,000 |
| Kansas | 64,157,000 | South Dakota | 19,214,000 |
| Kentucky | 122,200,000 | Tennessee | 109,498,000 |
| Louisiana | 177,157,000 | Texas | 424,962,000 |
| Maine | 24,160,000 | Utah | 30,253,000 |
| Maryland | 99,208,000 | Vermont | 11,238,000 |
| Massachusetts | 178,728,000 | Virginia | 131,181,000 |
| Michigan | 148,551,000 | Washington | 78,339,000 |
| Minnesota | 97,645,000 | West Virginia | 49,049,000 |
| Mississippi | 62,689,000 | Wisconsin | 65,717,000 |
| | | Wyoming | 10,512,000 |
| | | Total | $5,510,186,000 |

Source: Bureau of the Census, U.S. Department of Commerce

## Insurance Guaranty Funds

All 50 states, the District of Columbia and Puerto Rico have established procedures under which solvent property and casualty insurance companies absorb losses of claimants against insolvent insurers. New York for many years has had a pre-assessment fund law which requires the permanent maintenance of an insolvency fund (to which companies contribute) with a statutory $200 million ceiling. The other jurisdictions have set up insurance guaranty associations through which solvent companies pay assessments as needed, on a proportionate basis.

From the inception of the post-assessment funds in 1969 through December 1986, the associations have collected $1,404,544,009 from insurers to cover 141 property and casualty insurance company insolvencies, including 16 in 1986. Of that total, about $160.4 million has been refunded to the companies.

The figures do not include assessments made under New York's pre-assessment insolvency fund nor payments made by individual companies under the insolvency provision of the uninsured motorist endorsement to auto insurance policies. They also do not take into consideration recoupments available in some states through premium tax offsets and policyholder surcharges.

### Guaranty Fund Assessments by State, 1969-1986 (000 omitted)

| State | Amount Collected | Amount Refunded | Net Assessments | State | Amount Collected | Amount Refunded | Net Assessments |
|---|---|---|---|---|---|---|---|
| Ala. | $11,803 | $ 0 | $ 11,803 | Neb. | $ 13,969 | $ 7,309 | $ 6,661 |
| Alaska | 2,359 | 1,147 | 1,212 | Nev. | 10,464 | 2,143 | 8,321 |
| Ariz. | 21,803 | 0 | 21,803 | N. H. | 6,129 | 275 | 5,855 |
| Ark. | 13,379 | 0 | 13,379 | N. J. | 23,897 | 12,479 | 11,419 |
| Calif. | 243,957 | 41,767 | 202,190 | N. M. | 7,728 | 0 | 7,728 |
| Colo. | 14,637 | 960 | 13,677 | N. Y. | * | * | * |
| Conn. | 13,169 | 4,081 | 9,088 | N. C. | 13,408 | 1,121 | 12,286 |
| Del. | 4,194 | 0 | 4,194 | N. D. | 3,517 | 0 | 3,517 |
| D.C. | 2,983 | 83 | 2,900 | Ohio | 52,935 | 5,878 | 47,057 |
| Fla. | 218,970 | 6,829 | 212,141 | Okla. | 13,602 | 0 | 13,602 |
| Ga. | 33,456 | 4,834 | 28,622 | Ore. | 16,546 | 0 | 16,546 |
| Hawaii | 25,605 | 500 | 25,105 | Pa. | 56,119 | 7,301 | 48,818 |
| Idaho | 4,587 | 0 | 4,587 | P. R. | 43,252 | 17,258 | 25,994 |
| Ill. | 98,675 | 7,265 | 91,410 | R. I. | 5,620 | 1,226 | 4,395 |
| Ind. | 7,038 | 1,245 | 5,793 | S. C. | 11,393 | 782 | 10,610 |
| Iowa | 14,679 | 525 | 14,153 | S. D. | 2,954 | 0 | 2,954 |
| Kan. | 9,752 | 72 | 9,680 | Tenn. | 6,427 | 280 | 6,146 |
| Ky. | 15,614 | 662 | 14,951 | Texas | 50,442 | 0 | 50,442 |
| La. | 36,689 | 3,973 | 32,716 | Utah | 120 | 0 | 120 |
| Maine | 3,340 | 155 | 3,185 | Vt. | 3,900 | 103 | 3,797 |
| Md. | 16,402 | 1,090 | 15,311 | Va. | 10,394 | 0 | 10,394 |
| Mass. | 23,262 | 8,303 | 14,960 | Wash. | 8,627 | 292 | 8,335 |
| Mich. | 77,011 | 8,492 | 68,519 | W. Va. | 4,884 | 782 | 4,102 |
| Minn. | 70,771 | 6,030 | 64,741 | Wis. | 17,854 | 2,999 | 14,855 |
| Miss. | 10,354 | 1,071 | 9,283 | Wyo. | 2,132 | 30 | 2,103 |
| Mo. | 14,423 | 849 | 13,573 | | | | |
| Mont. | 9,319 | 258 | 9,061 | Total | $1,404,544 | $160,451 | $1,204,093 |

*New York has a pre-assessment fund.

Source: National Committee on Insurance Guaranty Funds

# 3. Shared Markets

## The Automobile Shared Market

The insurance industry has established mechanisms in every state to provide automobile insurance for drivers who, for whatever reason, are unable to obtain coverage in the voluntary market. The first of the shared market mechanisms was established in New Hampshire in 1938. Today, all 50 states and the District of Columbia use one of four systems to guarantee the availability of auto insurance.

- Automobile Insurance Plan—Auto insurance applicants unable to obtain coverage in the competitive market are distributed to insurance companies in proportion to the amount of business each insurer writes voluntarily in the state. Each insurer services the policyholders as it services other customers.
- Joint Underwriting Association—JUAs are pooling mechanisms where all companies share in the profits and losses as well as expenses incurred. Agents submit applications to several companies which have agreed to issue and service policies.
- Reinsurance Facility—Under this pooling system, each auto insurer is required to provide coverage and service the claims for any applicant, but is permitted to transfer a percentage of its policies to the facility. Profits or losses are shared by all insurers licensed in the state.
- State Fund—Maryland established a state funded mechanism in 1973. Private insurers don't participate directly in the Maryland Automobile Insurance Fund, but are required by law to subsidize any losses from the operation, with the cost being charged back against their own policyholders.

Data provided by the Automobile Plans Service Office (AIPSO) reflect an increase of 15.36 percent from 1985 to 1986 in the number of cars insured through the various shared market mechanisms countrywide. The increase in volume was about the same in 1985 after declines in both 1983 and 1984.

The individual plans of 44 jurisdictions reported increases in the number of vehicles insured in 1986. States with the greatest numbers of private passenger cars insured through the shared market facilities in 1986 were Massachusetts, with more than 1.77 million; New Jersey, with nearly 1.7 million, and New York, with 1.1 million. No other state plan insured as many as a million vehicles.

State by state data are tabulated on the next page.

## Private Passenger Cars Insured through the Shared Market Mechanisms (Written Car Years), 1985-1986

| State | Insured in Shared Market, 1986 | Insured in Shared Market, 1985 | % Change 1985-86 |
|---|---|---|---|
| Alabama | 3,308 | 3,763 | – 12.09% |
| Alaska | 4,045 | 3,070 | + 31.76 |
| Arizona | 348 | 111 | + 213.51 |
| Arkansas | 1,710 | 1,641 | + 4.20 |
| California | 423,832 | 335,109 | + 26.48 |
| Colorado | 347 | 221 | + 57.01 |
| Connecticut | 157,553 | 119,032 | + 32.36 |
| Delaware | 18,955 | 12,582 | + 50.65 |
| District of Columbia | 29,657 | 22,688 | + 30.72 |
| Florida | 80,179 | 36,475 | + 119.82 |
| Georgia | 22,736 | 11,919 | + 90.75 |
| Hawaii | 8,060 | 7,774 | + 3.68 |
| Idaho | 475 | 305 | + 55.74 |
| Illinois | 4,487 | 2,675 | + 67.74 |
| Indiana | 1,579 | 983 | + 60.63 |
| Iowa | 620 | 550 | + 12.73 |
| Kansas | 12,275 | 13,262 | – 7.44 |
| Kentucky | 36,963 | 31,255 | + 18.26 |
| Louisiana | 13,357 | 12,027 | + 11.06 |
| Maine | 16,193 | 6,081 | + 166.29 |
| Maryland | 84,064 | 51,111 | + 64.47 |
| Massachusetts | 1,772,810 | 1,524,905 | + 16.26 |
| Michigan | 193,323 | 149,160 | + 29.61 |
| Minnesota | 8,856 | 2,900 | + 205.38 |
| Mississippi | 8,147 | 6,827 | + 19.33 |
| Missouri | 4,662 | 2,790 | + 67.10 |
| Montana | 317 | 202 | + 56.93 |
| Nebraska | 730 | 318 | + 129.56 |
| Nevada | 122 | 135 | – 9.63 |
| New Hampshire | 131,289* | 126,532 | + 3.76 |
| New Jersey | 1,697,383 | 1,638,404 | + 3.60 |
| New Mexico | 516 | 620 | – 16.77 |
| New York | 1,128,430 | 942,339 | + 19.75 |
| North Carolina | 844,001* | 820,327 | + 2.89 |
| North Dakota | 164 | 226 | – 27.43 |
| Ohio | 663 | 481 | + 37.84 |
| Oklahoma | 5,598 | 5,334 | + 4.95 |
| Oregon | 1,849 | 623 | + 196.79 |
| Pennsylvania | 110,948 | 88,701 | + 25.08 |
| Rhode Island | 47,841 | 37,043 | + 29.15 |
| South Carolina | 564,726 | 477,726 | + 18.21 |
| South Dakota | 343 | 391 | – 12.28 |
| Tennessee | 17,914 | 12,389 | + 44.60 |
| Texas | 220,133 | 183,747 | + 19.80 |
| Utah | 54 | 15 | + 260.00 |
| Vermont | 7,008 | 3,069 | + 128.35 |
| Virgin Islands | (10) | 3,794 | – 100.26 |
| Virginia | 134,757 | 80,590 | + 67.21 |
| Washington | 4,614 | 3,637 | + 26.86 |
| West Virginia | 4,304 | 3,707 | + 16.10 |
| Wisconsin | 1,481 | 861 | + 72.01 |
| Wyoming | 177 | 264 | – 32.95 |
| Countrywide | 7,833,893 | 6,790,691 | + 15.36% |

*Estimated

Source: Automobile Insurance Plans Service Office

## Insurance through FAIR and Windstorm Plans

Continuation of a "firm" standard insurance market was believed to be largely responsible for the second increase in as many years in the number of policies issued through the special Fair Access to Insurance Requirement (FAIR) Plans which provide insurance to many property owners in inner city and other high risk areas. The insurance industry-operated plans first came into existence in the 1960s to make property insurance coverages more readily available to property owners who often had difficulty obtaining insurance because of abnormal exposure to threatening hazards over which they had no control.

With the addition of the West Virgina Essential Property Insurance Association in 1986, FAIR Plans now are operative in 27 states, the District of Columbia and Puerto Rico.

Data provided by the National Committee on Property Insurance reflect a 17 percent increase, from 733,100 in 1985 to 858,166 in 1986, in the number of policies issued by the various plans. A 3 percent increase in the number of policies issued in 1985 marked the first such hike in five years. New applicants accounted for about 32 percent of the policies issued in 1986.

The amount of insurance in force in California and Oregon at the close of 1986 was not available, but for the other states the total of more than $34.4 billion was 51 percent greater than the total shown for the same states at the end of 1985.

Beach and windstorm plans, which operate in seven states along the Atlantic and Gulf Coasts where vulnerability to severe windstorm damage is especially high, also reported increased activity again in 1986. The number of policies issued was up about 15 percent, and the $13.3 billion of insurance in force at year end was 34 percent greater than the total at the end of 1985.

The table that follows excludes Puerto Rico, for which no 1986 data were available.

### Insurance Provided by FAIR Plans

| Jurisdiction | Applications, 1986 New | Applications, 1986 Renewal | Binders or Policies Issued, 1986 New | Binders or Policies Issued, 1986 Renewal | Insurance in Force 12/31/86 (000 omitted) |
|---|---|---|---|---|---|
| California | 87,654 | 88,408 | 33,514 | 86,109 | * |
| Connecticut | 4,719 | 4,025 | 2,131 | 3,682 | $ 505,694 |
| Delaware | 1,220 | 1,848 | 681 | 1,803 | 65,916 |
| District of Columbia | 2,944 | 4,704 | 1,205 | 4,266 | 475,812 |
| Georgia | 6,848 | 4,200 | 3,448 | 3,610 | 353,311 |
| Illinois | 15,437 | 20,594 | 6,032 | 16,985 | 926,267 |
| Indiana | 1,651 | 2,240 | 899 | 1,779 | 93,752 |
| Iowa | 802 | 786 | 447 | 780 | 41,729 |
| Kansas | 6,608 | 6,631 | 4,805 | 6,774 | 305,997 |
| Kentucky | 22,419 | 0 | 19,737 | 20,205 | 1,183,433 |

*Not available.

| Jurisdiction | Applications, 1986 New | Applications, 1986 Renewal | Binders or Policies Issued, 1986 New | Binders or Policies Issued, 1986 Renewal | Insurance in Force 12/31/86 (000 omitted) |
|---|---|---|---|---|---|
| Louisiana | 4,728 | 1,734 | 1,722 | 1,754 | $221,053 |
| Maryland | 9,927 | 11,586 | 6,276 | 10,746 | 469,379 |
| Massachusetts | 28,610 | 50,279 | 17,497 | 45,367 | 4,136,171 |
| Michigan | 70,392 | 148,085 | 62,418 | 129,703 | 9,806,774 |
| Minnesota | 2,179 | 963 | 986 | 686 | 108,533 |
| Missouri | 27,123 | 24,222 | 9,409 | 20,007 | 686,827 |
| New Jersey | 26,687 | 53,414 | 18,228 | 46,798 | 3,894,076 |
| New Mexico | 2,532 | 2,456 | 3,008 | 2,454 | 402,158 |
| New York | 37,163 | 75,635 | 27,646 | 75,635 | 6,254,359 |
| North Carolina | 18,656 | 9,778 | 6,300 | 7,459 | 519,126 |
| Ohio | 11,251 | 12,892 | 10,641 | 12,892 | 455,882 |
| Oregon | 2,888 | 2,743 | 2,210 | 2,743 | * |
| Pennsylvania | 34,017 | 75,480 | 22,319 | 58,564 | 2,160,236 |
| Rhode Island | 5,022 | 8,819 | 3,536 | 7,317 | 443,130 |
| Virginia | 9,844 | 10,909 | 5,465 | 8,759 | 482,122 |
| Washington | 333 | 447 | 235 | 476 | 98,014 |
| West Virginia** | 443 | 0 | 254 | 0 | * |
| Wisconsin | 7,931 | 8,556 | 4,255 | 5,509 | 339,936 |
| Totals | 450,028 | 631,434 | 275,304 | 582,862 | $34,439,687 |

*Not available.
**West Virginia FAIR Plan began writing policies Oct. 1, 1986.

Source: National Committee on Property Insurance

## Insurance Provided by Beach and Windstorm Plans

| State | Applications, 1986 New | Applications, 1986 Renewal | Binders or Policies Issued, 1986 New | Binders or Policies Issued, 1986 Renewal | Insurance in Force 12/31/86 (000 omitted) |
|---|---|---|---|---|---|
| Alabama | 1,400 | 2,461 | 1,197 | 2,457 | $ 268,646 |
| Florida | 12,193 | 41,714 | 9,702 | 41,714 | 5,203,835 |
| Louisiana | 1,717 | 4,525 | 1,830 | 6,581 | 213,411 |
| Mississippi | 5,163 | 5,363 | 5,007 | 5,198 | 560,388 |
| North Carolina | 6,975 | 7,596 | 4,038 | 5,491 | 1,074,241 |
| South Carolina | 2,491 | 4,160 | 2,331 | 4,107 | 1,557,823 |
| Texas | 72,726 | 0 | 43,393 | 0 | 4,433,626 |
| Totals | 102,665 | 65,819 | 67,498 | 65,548 | $13,311,970 |

Source: National Committee on Property Insurance

# 4. Government Insurance Programs

## Flood Insurance in the United States

Insurance against flood and mudslide losses is available to property owners in participating communities in every state, the District of Columbia, Puerto Rico, Guam and the Virgin Islands under a program established by the National Flood Insurance Act of 1968 and strengthened by the Flood Disaster Protection Act of 1973. The National Flood Insurance Program (NFIP) was developed jointly by the insurance business and the Federal Insurance Administration (FIA). Administered by the FIA for several years, the program was opened to private insurers in October 1983 under a procedure providing for government reimbursement of losses not covered by premiums and income derived from the investment of those premiums.

As a result of the Write Your Own program, the number of policies issued directly by the government declined by almost 30 percent from 1985 to 1986, from 1,361,855 to 959,801, after a 20 percent drop in the previous year. The amount of insurance in force under those policies declined from $88.8 billion to $62.7 billion. The number of Write Your Own policies jumped from 586,201 in 1985 to 1,014,101 in 1986, and the amount of insurance in force under those policies climbed from $46.3 billion to $81.9 billion.

More than 86 percent of the flood insurance purchased in the United States covers residential properties, and the amount of coverage on those properties accounts for nearly 82 percent of the flood insurance in force.

More than 20,000 communities have identified special flood hazard areas, and about 18,000 of them have qualified for the coverage by agreeing to take steps to minimize future flood damage. Flood insurance is available only in participating communities, and the failure of flood-prone communities to participate has significant impact on the availability of funds for certain mortgages.

The table below shows the amount of flood insurance provided in 1986 through the government and the private insurance programs in each jurisdiction, and the total amount provided through the two programs countrywide.

### Flood Insurance in the United States, 1986

| State | No. of Communities* | Direct NPIF Business | | Write Your Own Business | | NFIP and WYO Combined | |
|---|---|---|---|---|---|---|---|
| | | No. of Policies | Ins. in Force (000 omitted) | No. of Policies | Ins. in Force (000 omitted) | No. of Policies | Ins. in Force** (000 omitted) |
| Ala. | 264 | 8,615 | $ 483,945 | 8,278 | $ 581,300 | 16,893 | $ 1,065,245 |
| Alaska | 20 | 1,656 | 111,822 | 837 | 57,768 | 2,493 | 169,589 |
| Ariz. | 87 | 15,422 | 952,614 | 6,112 | 425,139 | 21,534 | 1,377,753 |
| Ark. | 324 | 4,814 | 138,353 | 1,595 | 70,159 | 6,409 | 208,512 |
| Calif. | 429 | 75,406 | 5,697,558 | 2,635 | 2,261,999 | 105,041 | 7,958,757 |

| State | No. of Communities* | Direct NPIF Business No. of Policies | Direct NPIF Business Ins. in Force (000 omitted) | Write Your Own Business No. of Policies | Write Your Own Business Ins. in Force (000 omitted) | NFIP and WYO Combined No. of Policies | NFIP and WYO Combined Ins. in Force** (000 omitted) |
|---|---|---|---|---|---|---|---|
| Colo. | 216 | 6,161 | $ 398,698 | 1,937 | $ 131,740 | 8,098 | $ 530,438 |
| Conn. | 180 | 13,490 | 1,045,025 | 3,109 | 285,963 | 16,599 | 1,330,988 |
| Del. | 43 | 2,793 | 249,389 | 3,193 | 310,305 | 5,986 | 559,694 |
| D. of C. | 1 | 33 | 3,407 | 4 | 229 | 37 | 3,636 |
| Fla. | 358 | 182,862 | 13,022,696 | 467,399 | 39,570,650 | 650,261 | 52,593,346 |
| Ga. | 304 | 8,898 | 600,195 | 9,540 | 786,134 | 18,438 | 1,386,329 |
| Hawaii | 4 | 6,610 | 658,990 | 1,723 | 202,937 | 8,333 | 861,927 |
| Idaho | 145 | 1,433 | 74,704 | 297 | 17,595 | 1,730 | 92,299 |
| Ill. | 728 | 17,127 | 758,580 | 4,898 | 216,803 | 22,025 | 975,383 |
| Ind. | 347 | 9,360 | 345,500 | 2,569 | 101,714 | 11,929 | 447,214 |
| Iowa | 363 | 3,881 | 143,729 | 782 | 36,170 | 4,663 | 179,899 |
| Kan. | 304 | 5,897 | 227,439 | 933 | 39,004 | 6,830 | 266,443 |
| Ky. | 246 | 9,698 | 413,142 | 4,686 | 224,639 | 14,384 | 637,781 |
| La. | 267 | 99,136 | 6,460,275 | 144,067 | 10,325,011 | 243,203 | 16,785,207 |
| Me. | 942 | 2,658 | 126,831 | 1,976 | 110,894 | 4,634 | 237,726 |
| Md. | 110 | 10,282 | 687,958 | 9,680 | 784,297 | 19,962 | 1,472,255 |
| Mass. | 320 | 23,456 | 1,564,711 | 1,278 | 94,841 | 24,734 | 659,552 |
| Mich. | 545 | 11,939 | 560,343 | 6,140 | 308,567 | 18,079 | 868,910 |
| Minn. | 461 | 3,946 | 186,677 | 1,313 | 59,061 | 5,259 | 245,738 |
| Miss. | 262 | 13,899 | 743,947 | 19,853 | 1,216,622 | 33,752 | 1,960,570 |
| Mo. | 479 | 11,621 | 469,917 | 3,061 | 136,021 | 14,682 | 605,938 |
| Mont. | 99 | 1,389 | 59,262 | 198 | 9,092 | 1,587 | 68,354 |
| Neb. | 271 | 5,769 | 235,210 | 1,539 | 72,444 | 7,308 | 307,654 |
| Nev. | 28 | 4,045 | 174,679 | 1,564 | 74,492 | 5,609 | 249,171 |
| N.H. | 165 | 1,946 | 97,555 | 714 | 36,752 | 2,660 | 134,307 |
| N.J. | 539 | 67,690 | 5,374,151 | 37,464 | 3,030,289 | 105,154 | 8,404,440 |
| N.M. | 70 | 3,451 | 145,969 | 1,103 | 54,704 | 4,554 | 200,673 |
| N.Y. | 1,462 | 52,147 | 3,337,435 | 8,545 | 647,719 | 60,692 | 3,985,154 |
| N.C. | 316 | 20,126 | 1,408,708 | 13,605 | 962,207 | 33,731 | 2,370,915 |
| N.D. | 229 | 3,973 | 151,910 | 1,173 | 48,349 | 5,146 | 200,259 |
| Ohio | 664 | 11,849 | 477,761 | 2,830 | 125,573 | 14,679 | 603,334 |
| Okla. | 323 | 8,956 | 561,173 | 1,608 | 114,820 | 10,564 | 675,992 |
| Ore. | 254 | 4,823 | 270,020 | 804 | 45,416 | 5,627 | 315,435 |
| Pa. | 2,446 | 38,460 | 1,647,943 | 18,921 | 915,670 | 57,381 | 2,563,612 |
| R.I. | 38 | 10,787 | 461,756 | 646 | 62,645 | 7,300 | 524,401 |
| S.C. | 167 | 761 | 872,617 | 29,578 | 3,063,635 | 40,365 | 3,936,252 |
| S.D. | 102 | 761 | 35,041 | 231 | 10,474 | 992 | 45,515 |
| Tenn. | 218 | 4,592 | 230,308 | 1,686 | 98,738 | 6,278 | 329,046 |
| Texas | 799 | 98,154 | 119,488 | 133,072 | 12,483,951 | 231,226 | 20,603,438 |
| Utah | 180 | 1,570 | 78,394 | 393 | 21,187 | 1,963 | 99,580 |
| Vt. | 215 | 1,288 | 50,265 | 711 | 30,953 | 1,999 | 81,218 |
| Va. | 251 | 16,974 | 1,152,748 | 15,440 | 1,341,049 | 32,414 | 2,493,797 |
| Wash. | 244 | 9,148 | 527,118 | 1,168 | 72,229 | 10,316 | 599,348 |
| W. Va. | 265 | 9,715 | 327,702 | 4,541 | 172,561 | 14,256 | 500,263 |
| Wis. | 483 | 5,545 | 238,324 | 1,274 | 55,083 | 6,819 | 293,407 |
| Wyo. | 63 | 1,161 | 63,325 | 291 | 16,037 | 1,452 | 79,362 |
| Guam | 1 | 21 | 989 | 0 | 0 | 21 | 989 |
| Puerto Rico | 1 | 10,787 | 355,510 | 89 | 4,009 | 15,941 | 359,519 |
| Virgin I. | 1 | 1,862 | 98,394 | 18 | 1,183 | 1,880 | 99,577 |
| Countrywide | 17,643 | 959,801 | $62,680,199 | 1,014,101 | $81,926,022 | 1,973,902 | $144,606,221 |

*Numbers of participating communities are as of 1985; 1986 figures not available.

**Some totals do not balance because of rounding.

Source: Federal Insurance Administration, Federal Emergency Management Agency

## Federal Crime Insurance

The Federal Crime Insurance Program, established by Congress in 1970, began operation Aug. 1, 1971. It is administered by the federal insurance administrator, who is authorized to make federal crime insurance policies available in states in which that official perceives an availability problem. Policies, offered to both individuals and businesses, cover losses due to burglary and robbery.

Nat-Con-Serv, Inc., a Maryland Corporation, acts as the servicing carrier in participating states. Policies are sold through licensed property insurance agents and brokers.

In 1986, 23 states, the District of Columbia, Puerto Rico and the Virgin Islands were participating in the program.

The Federal Insurance Administration reported that from the end of 1985 to year-end 1986 the number of policies in force decreased about 15 percent from 38,474 to 32,641. The amount of coverage in force declined by 5.5 percent, from $325.3 million to $286.8 million.

### Federal Crime Insurance, 1986

| | Policies in Force at Year End | | | Insurance in Force at Year End (000) | | |
|---|---|---|---|---|---|---|
| State | Residential | Commercial | Total | Residential | Commercial | Total |
| Alabama | 672 | 20 | 692 | $ 5,076 | $ 133 | $ 5,209 |
| Arkansas | 35 | 15 | 50 | 191 | 81 | 272 |
| California | 1,388 | 593 | 1,981 | 10,879 | 9,117 | 19,996 |
| Colorado | 30 | 21 | 51 | 243 | 174 | 417 |
| Connecticut | 85 | 27 | 112 | 671 | 278 | 949 |
| Delaware | 102 | 2 | 104 | 601 | 16 | 617 |
| District of Columbia | 42 | 92 | 134 | 316 | 1,086 | 1,402 |
| Florida | 1,462 | 674 | 2,136 | 12,569 | 9,085 | 21,654 |
| Georgia | 202 | 163 | 365 | 1,420 | 1,652 | 3,072 |
| Illinois | 257 | 299 | 556 | 1,813 | 2,737 | 4,550 |
| Iowa | 5 | 3 | 8 | 43 | 26 | 69 |
| Kansas | 238 | 21 | 259 | 1,276 | 217 | 1,493 |
| Louisiana | 18 | 16 | 34 | 125 | 116 | 241 |
| Maryland | 67 | 110 | 177 | 498 | 1,252 | 1,750 |
| Massachusetts | 552 | 235 | 787 | 3,292 | 2,733 | 6,025 |
| Missouri | 581 | 119 | 700 | 3,751 | 980 | 4,731 |
| New Jersey | 1,098 | 304 | 1,402 | 8,230 | 3,749 | 11,979 |
| New York | 13,416 | 5,289 | 18,705 | 103,036 | 66,649 | 169,685 |
| North Carolina | 797 | 13 | 810 | 5,456 | 106 | 5,562 |
| Ohio | 205 | 92 | 297 | 1,221 | 874 | 2,095 |
| Pennsylvania | 1,510 | 505 | 2,015 | 9,148 | 5,207 | 14,355 |
| Rhode Island | 23 | 26 | 49 | 165 | 175 | 340 |
| Tennessee | 120 | 129 | 249 | 793 | 1,119 | 1,912 |
| Virginia | 64 | 13 | 77 | 402 | 84 | 486 |
| Puerto Rico | 600 | 171 | 771 | 4,929 | 1,961 | 6,890 |
| Virgin Islands | 96 | 24 | 120 | 770 | 290 | 1,060 |
| Totals | 23,665 | 8,976 | 32,641 | $176,914 | $109,897 | $286,811 |

Source: Federal Insurance Administration, Crime Insurance Statistical Report

# 5. Factors Affecting Costs

## Trends in Costs of Goods, Services and Insurance

The cost of insurance is influenced heavily by the costs of the materials and services for which property and casualty insurers must pay in meeting their obligations to their policyholders. Tabulated below and on the following page are indices showing the trends of costs of household and auto insurance and of typical factors which affect insurance claims. The cost of living index for all items rose only 1.9 percent from 1985 to 1986, the smallest annual increase in many years.

Except as otherwise noted, all index figures are annual averages.

### Price Indices for Property Insurance and Related Items and Annual Rates of Change, 1977-1986 (Base: Except as Otherwise Noted, 1967 = 100)

| Year | Cost of Living (all items) Index | % Change | Homeowners' Costs* Index | % Change | House Maintenance and Repairs Index | % Change | Renters' Costs* Index | % Change |
|---|---|---|---|---|---|---|---|---|
| 1977 | 181.5 | | | | 214.7 | | | |
| 1978 | 195.4 | + 7.7% | | | 233.0 | + 8.5% | | |
| 1979 | 217.4 | + 11.3 | | | 256.4 | + 10.0 | | |
| 1980 | 246.8 | + 13.5 | | | 285.7 | + 11.4 | | |
| 1981 | 272.4 | + 10.4 | | | 314.4 | + 10.0 | | |
| 1982 | 289.1 | + 6.1 | | | 334.1 | + 6.3 | | |
| 1983 | 298.4 | + 3.2 | 102.5 | | 346.3 | + 3.7 | 103.0 | |
| 1984 | 311.1 | + 4.3 | 107.3 | + 4.7% | 359.2 | + 3.7 | 108.6 | + 5.4% |
| 1985 | 322.2 | + 3.6 | 113.1 | + 5.4 | 368.9 | + 2.7 | 115.4 | + 6.3 |
| 1986 | 328.4 | + 1.9 | 119.4 | + 5.6 | 373.8 | + 1.3 | 121.9 | + 5.6 |
| % Change, 1977-1986 | | + 80.9 | | N.A.*** | | + 74.1 | | N.A.*** |

| Year | House Furnishings Index | % Change | Private Residential Construction Costs Index | % Change | Private Non-residential Construction Costs Index | % Change | Household Insurance Index | %Change |
|---|---|---|---|---|---|---|---|---|
| 1977 | 156.5 | | 210.1 | | 211.2 | | | |
| 1978 | 154.3 | – 1.4% | 240.9 | + 14.7% | 237.3 | + 12.4% | | |
| 1979 | 163.1 | + 5.7 | 273.0 | + 13.3 | 275.5 | + 16.1 | | |
| 1980 | 174.2 | + 6.8 | 300.0 | + 9.9 | 310.8 | + 12.8 | | |
| 1981 | 185.2 | + 6.3 | 324.2 | + 8.1 | 324.6 | + 4.4 | | |
| 1982 | 193.8 | + 4.6 | 331.5 | + 2.3 | 327.0 | + 0.7 | | |
| 1983 | 197.5 | + 1.9 | 338.6 | + 2.1 | 330.8 | + 1.2 | 103.2 | |
| 1984 | 199.1 | + 0.8 | 353.5 | + 4.4 | 342.9 | + 3.7 | 107.5 | + 4.2% |
| 1985 | 200.1 | + 0.5 | ** | | ** | | 112.4 | + 4.6 |
| 1986 | 201.1 | + 0.5 | ** | | ** | | 119.2 | + 6.0 |
| % Change, 1977-1986 | | + 28.5 | | N.A.*** | | N.A.*** | | N.A.*** |

*Indexing of Homeowners' Costs, Renters' Costs and Household Insurance was started in 1983 with a base (index value) of 100 as of December 1982. Previously indexed items which have been discontinued include Home Ownership, whose average annual cost had increased by 130.3 percent from 1974 to 1983, and Property Insurance Premiums, whose average annual cost had increased by 139.6 percent from 1974 to 1983.

**Not available.

***Not applicable.

Sources: Construction cost data, compiled by Insurance Information Institute from data provided by the U.S. Department of Commerce, Bureau of the Census; other data, U.S. Department of Labor, Bureau of Labor Statistics.

## Price Indices for Auto Insurance and Related Items and Annual Rates of Change, 1977-1986 (Base: Except as Indicated, 1967 = 100)

| Year | Medical Care Items Index | Medical Care Items % Change | Hospital Rooms Index | Hospital Rooms % Change | Physicians' Fees Index | Physicians' Fees % Change | Auto Repairs and Maintenance* Index | Auto Repairs and Maintenance* % Change |
|---|---|---|---|---|---|---|---|---|
| 1977 | 202.4 | | 299.5 | | 206.0 | | 203.7 | |
| 1978 | 219.4 | + 8.4% | 332.4 | + 11.0% | 223.1 | + 8.3% | 220.6 | + 8.3% |
| 1979 | 239.7 | + 9.3 | 370.3 | + 11.4 | 243.6 | + 9.2 | 242.6 | + 10.0 |
| 1980 | 265.9 | + 10.9 | 418.9 | + 13.1 | 269.3 | + 10.6 | 268.3 | + 10.6 |
| 1981 | 294.5 | + 10.8 | 481.1 | + 14.8 | 299.0 | + 11.0 | 293.6 | + 9.4 |
| 1982 | 328.7 | + 11.6 | 566.7 | + 15.7 | 327.1 | + 9.4 | 315.8 | + 7.6 |
| 1983 | 357.3 | + 8.7 | 619.7 | + 11.3 | 352.3 | + 7.7 | 330.0 | + 4.5 |
| 1984 | 379.5 | + 6.2 | 670.9 | + 8.3 | 376.8 | + 7.0 | 341.5 | + 3.5 |
| 1985 | 403.1 | + 6.2 | 710.5 | + 5.9 | 398.8 | + 5.8 | 351.4 | + 2.9 |
| 1986 | 433.5 | + 7.5 | 753.1 | + 6.0 | 427.7 | + 7.2 | 363.1 | + 3.3 |
| % Change, 1977-1986 | | + 114.2 | | + 151.5 | | + 107.6 | | + 78.3 |

| Year | Auto Crash Parts Prices** Index | Auto Crash Parts Prices** % Change | Labor Rates, Auto Repairs*** Average Rate | Labor Rates, Auto Repairs*** % Change | Auto Insurance Index | Auto Insurance % Change |
|---|---|---|---|---|---|---|
| 1977 | 109.3 | | | | 210.5 | |
| 1978 | 120.6 | + 10.3% | | | 216.6 | + 2.9% |
| 1979 | 133.0 | + 10.3 | | | 228.7 | + 5.6 |
| 1980 | 148.1 | + 11.4 | | | 247.4 | + 8.2 |
| 1981 | 168.8 | + 14.0 | | | 259.0 | + 4.7 |
| 1982 | 188.0 | + 11.4 | | | 275.7 | + 6.4 |
| 1983 | 193.6 | + 3.0 | | | 302.7 | + 9.8 |
| 1984 | 194.9 | + 0.7 | $20.07 | | 326.3 | + 7.8 |
| 1985 | 190.0 | − 2.5 | 21.42 | + 7.0% | 359.5 | + 10.2 |
| 1986 | 173.3 | − 8.8 | 22.07 | + 3.0% | 407.2 | + 13.3 |
| 1987 | 170.6 | − 1.6 | | | | |
| % Change, 1977-1986 | | + 56.1# | | N.A.## | | + 93.4 |

* The cost of auto crash replacement is not reflected in this index, which includes prices for water pump replacement, motor tune-up, automatic transmission repair, front end alignment and chassis lubrication. The trend in the cost of parts commonly used to repair auto crash damage is reflected in the index of auto crash parts prices developed by State Farm Mutual Automobile Insurance Company.

** Base: Jan. 1, 1976 = 100. Index figure for each year is as of Jan. 1.

*** Not computed as an index. Dollar figures, based on a new study, are countrywide average hourly labor rates applicable to sheet metal work only. Discontinued study whose findings previously were reported weighted four types of labor.

\# Percent change 1977-1987.

\#\# Not applicable.

Sources: Auto Crash Parts Prices, State Farm Mutual Automobile Insurance Company; Labor Rates, Auto Repairs, Allstate Insurance Company; other data, U.S. Department of Labor, Bureau of Labor Statistics.

## Personal Injury Lawsuits

The frequency of lawsuits and the average size of court settlements, including jury verdicts, have a significant impact on the cost of liability insurance.

Jury Verdict Research, Inc. (JVR) reported a 13.1 percent increase from 1984 to 1985 in the average size of verdicts awarded in four common injury categories: cervical strain, knee injuries, vertebrae fractures and wrongful deaths of adult males. The comparable rate of increase in 1984 was 10 percent. However, JVR noted that two exceptionally large verdicts totaling $18.6 million were excluded from the 1984 analysis, and that one verdict of more than $12 million was excluded in 1985 because of the "overshadowing" effect of such awards, in that they artificially skew statistical deviations and actuarial probabilities. Had those verdicts been included, the rates of increase would have been 27.54 percent in 1984 and 15.36 percent in 1985.

For 1985, JVR listed average verdicts of $22,591 in cervical strain cases, $167,364 for knee injuries, $134,793 for vertebrae fractures, and $1,093,952 (without taking the $12 million award into account) in wrongful death cases.

JVR also has kept records of million-dollar verdicts since the first one was recorded in 1962. The number of such awards has risen steadily to a record 488 in 1985. The research organization said that of more than 2,500 million-dollar verdicts recorded in its data bank, product liability suits accounted for the largest number, 569, followed by medical malpractice actions, 470; work-related cases, 310, and vehicular cases, 301. JVR said that at least one million-dollar verdict has been reported in every state, the District of Columbia and the Virgin Islands, and that more such awards have been made in New York than in any other state.

JVR said four injury categories accounted for 65 percent of the million-dollar verdicts it has recorded and analyzed. Claims of wrongful death accounted for the largest number, representing 22 percent of all the million-dollar awards. Some 20 percent of the awards were rendered to plaintiffs who suffered brain damage, 15 percent to plaintiffs who sustained spinal cord injuries (paralysis), and 8 percent to plaintiffs who experienced the amputation of a leg and/or an arm.

The JVR data indicate that the number and size of product liability and medical malpractice verdicts generally have increased over the years, although there have been upward and downward fluctuations from year to year. In each category, the total number of verdicts recorded in the agency's data bank in each of those categories more than doubled from 1975 through 1985. In medical malpractice cases, the number of plaintiff verdicts reported declined appreciably from 1984 to 1985, but the number of million-dollar verdicts rose from 71 to 79. In product liability cases, JVR reported a drop in the overall number of

plaintiff verdicts (from 338 to 291), as well as a slight drop in million-dollar awards, from 86 to 83.

The report listed the average size of verdicts in medical malpractice cases in 1985 as $1,179,095, and in product liability cases as $1,091,005.

A more comprehensive reflection of the tendency of Americans to sue is contained in annual state-by-state compilations by the Administrative Office of the U.S. Courts of product liability lawsuits filed in federal courts. Of 13,595 cases filed in fiscal 1986, some 91.6 percent involved personal injuries, 3.5 percent were property damage filings and 4.2 percent were contract actions. The number of product liability filings was only fractionally higher than that recorded in the preceding fiscal year.

A state-by-state tabulation of product liability cases filed in federal district courts during the last two fiscal years appears below.

## Product Liability Cases Commenced in Federal District Courts, 1985-1986

| State | Fiscal 1986* | Fiscal 1985* | % Change | State | Fiscal 1986* | Fiscal 1985* | % Change |
|---|---|---|---|---|---|---|---|
| Ala. | 122 | 118 | + 3.4% | Nev. | 30 | 42 | – 28.6% |
| Alaska | 43 | 50 | – 14.0 | N. H. | 68 | 71 | – 4.2 |
| Ariz. | 43 | 31 | + 38.7 | N. J. | 150 | 187 | – 19.8 |
| Ark. | 175 | 148 | + 18.2 | N. M. | 54 | 37 | + 45.9 |
| Calif. | 659 | 748 | – 11.9 | N. Y. | 449 | 470 | – 4.5 |
| Colo. | 116 | 94 | + 23.4 | N. C. | 59 | 60 | – 1.7 |
| Conn. | 290 | 184 | + 57.6 | N. D. | 29 | 22 | + 22.7 |
| Del. | 27 | 18 | + 50.0 | Ohio | 1,200 | 1,018 | + 17.9 |
| D.C. | 83 | 86 | – 3.6 | Okla. | 234 | 239 | – 2.1 |
| Fla. | 449 | 354 | + 26.8 | Ore. | 67 | 77 | – 13.0 |
| Ga. | 294 | 299 | – 1.7 | Pa. | 1,155 | 908 | + 27.2 |
| Hawaii | 162 | 446 | – 63.7 | R.I. | 42 | 48 | – 12.5 |
| Idaho | 26 | 37 | – 29.7 | S. C. | 212 | 230 | – 7.8 |
| Ill. | 377 | 244 | + 54.5 | S.D. | 19 | 23 | – 17.4 |
| Ind. | 180 | 130 | + 38.5 | Tenn. | 177 | 199 | – 11.1 |
| Iowa | 59 | 65 | – 9.2 | Texas | 1,685 | 1,485 | + 13.5 |
| Kan. | 85 | 60 | + 41.7 | Utah | 45 | 51 | – 11.8 |
| Ky. | 157 | 102 | + 53.9 | Vt. | 12 | 12 | no change |
| La. | 678 | 482 | + 40.7 | Va. | 183 | 489 | – 62.6 |
| Maine | 52 | 81 | – 35.8 | Wash. | 138 | 189 | – 27.0 |
| Md. | 274 | 388 | – 29.4 | W. Va. | 114 | 68 | + 67.6 |
| Mass. | 950 | 1,216 | – 21.9 | Wis. | 81 | 82 | – 1.2 |
| Mich. | 458 | 460 | – 0.4 | Wyo. | 16 | 12 | + 33.3 |
| Minn. | 207 | 470 | – 56.0 | P. R. | 21 | 15 | + 40.0 |
| Miss. | 977 | 787 | + 24.1 | Guam | 0 | 1 | – 100.0 |
| Mo. | 507 | 228 | + 122.4 | N.M.I. | 0 | 1 | – 100.0 |
| Mont. | 54 | 107 | – 49.5 | V.I. | 7 | 13 | – 46.2 |
| Neb. | 92 | 72 | + 27.8 | Total | 13,595 | 13,554 | + 0.3 |

**Twelve-month period ended June 30.*

Source: Prepared by the Insurance Information Institute based on the 1986 Annual Report of the Administrative Office of the U.S. Courts.

## Medical Malpractice

Medical malpractice insurance, a form of professional liability insurance, is designed to protect physicians, surgeons, dentists and others in the medical profession from the financial consequences of their failure to use due care and the high degree of skill expected of a professional.

In the 1970s, medical malpractice insurance became the focus of widespread public attention because of a proliferation of lawsuits against doctors and other medical practitioners, including hospitals. Today, with the rising cost of insurance premiums for doctors continuing to impact on the cost of medical care, the medical malpractice insurance system again is in a crisis situation.

Both the number and the average size of medical malpractice claims and awards have been increasing steadily, with the result that insurance premiums for medical practitioners in many states have climbed sharply over the last few years, more than doubling in some cases. According to one major medical malpractice insurer, claims increased 57 percent from 1981 to 1985, from 11.3 claims per 100 insured doctors to 17.8. During the same period, the average claim cost per doctor jumped by more than 150 percent. In 1985, in some high risk specialties, such as brain surgery, one claim was filed for every two surgeons.

In just 10 years, according to Jury Verdict Research, Inc., the average medical malpractice plaintiff award has increased by more than 400 percent.

The American Medical Association estimates that betweeen 14.5 and 17.5 percent of the $75.4 billion spent on physicians' services in 1984 alone was attributable to professional liability costs. These include insurance premiums paid by doctors and hospitals, funds invested by doctors to capitalize physician-run insurance companies, hospitals' legal expenses and other related costs. Futhermore, in an effort to prevent malpractice suits, many doctors order more tests than they otherwise would. The costs of these tests—defensive medicine—has been put at about $17.5 billion a year.

Reasons for the increasing incidence of malpractice claims and the increasing size of awards are not entirely clear, but several contributing factors have been suggested.

In addition to the fact that the American public generally is more litigious than in the past, the crisis of the '70s, which was reported extensively by the news media, may have made people more aware of physicians' vulnerability to lawsuits. Other contributing factors are the loss often of an intimate relationship between families and their doctors, and the use of medical experts from outside a particular locale to testify in malpractice cases. Also, physicians have accused lawyers of being excessively eager to bring malpractice suits because of the high fees the lawyers can collect when their clients win.

To help reduce the number and size of medical malpractice claims and thus stem the spiraling increase in the cost of insurance, the insurance industry has joined forces with the medical community to promote reform of the tort system. Legislation designed to deal with the problem has been passed or is being considered in almost all states (see also "The Civil Justice System," pages 55–61). While many of the measures apply to all tort actions, others deal specifically with medical malpractice insurance.

(After physicians undertook an aggressive campaign in the '70s to reform state laws governing medical liability lawsuits, every state except West Virginia passed reforms. New Hampshire's entire reform act subsequently was struck down as unconstitutional by that state's Supreme Court. But Indiana's, which was considered the most comprehensive in the nation when it went into effect in 1975, has been found constitutional in all challenges and has helped to keep physicians' insurance premiums down in that state.)

The failure of state and federal agencies to take action against incompetent physicians and to determine whether physicians practicing in one state have been disciplined in others has been cited as among the factors contributing to the medical malpractice crisis. A report issued late in 1986 by the U.S. Department of Health and Human Services noted that state agencies in 1986 revoked a record number of medical licenses for incompetence and other inadequacies, almost 60 percent more than in 1985. An example of increased vigilance in disciplining physicians is the fact that in Virginia, the number of health care professionals disciplined for medical misconduct in the first five months of 1987 was more than double the total in 1986.

At the federal level, the 99th Congress passed legislation which would require insurers to submit information on settlements and judgments in medical malpractice suits to a national data bank. The data bank would be used by hospitals and other groups seeking to hire physicians.

Also, the General Accounting Office is studying the medical malpractice problem. In a report released in January 1987 examining the situation in six states, the GAO noted that legislation enacted in California in 1975 has helped to moderate increases in the cost of malpractice insurance and the size of awards, and that it was a good model to study because sufficient time has elapsed to assess its effects. Among other things, the California law established a contingency fee schedule and a $250,000 cap on pain and suffering. In a May 1985 study, the California Medical Association estimated savings in malpractice claims costs, ranging from 8 percent in 1976 to 49 percent in 1985.

## The Civil Justice System

The insurance liability crisis—the rising cost of liability insurance and, in some cases, the difficulty of obtaining it—has helped to focus widespread attention on the need to reform America's civil justice system, in particular, the tort system which deals with liability lawsuits. The legal process in recent years has been the subject of sharp criticisms based primarily on the growing number of lawsuits, especially unnecessarily prolonged suits, flooding the system.

In the words of former Chief Justice Warren E. Burger, one of many legal experts who have cited an urgent need for reform, the nation is plagued "with an almost irrational focus—virtually a mania—on litigation as a way to solve all problems." Pointing to "the high cost of going to trial and the slow pace of justice," he described the process of going to trial as "not only stressful and frustrating, but expensive and frequently unrewarding for litigants."

A study by the Rand Corporation's Institute for Civil Justice (ICJ), whose findings were released in July 1986, found that plaintiffs in personal injury lawsuits receive only 45 cents in compensation for every dollar spent on the civil justice system. The remaining 55 cents pays the costs of running the courts, administering insurance claims, hiring lawyers on both sides and other expenses.

During the five years studied by ICJ, the volume of lawsuits filed increased an average of 3.9 percent a year. The study put the cost of liability lawsuits in state and federal courts in 1986 at between $27.7 billion and $34.7 billion.

Data from individual states show that the number of lawsuits has increased in some jurisdictions and that where the number has remained about the same or dropped, the size of awards has risen.

### New Directions

Insurance industry trade associations have been joining with members of the business community throughout the United States to press for tort reforms that would restore greater fairness to the system. Their agenda for change is focused on four key areas: abolition of joint and several liability; modification of the collateral source rule; reinstitution of the state-of-the-art defense, and limitations on punitive damages. (See Explanation of Tort Reform Provisions on pages 58 and 59 for definitions of terms.)

In addition, the cost of bringing a lawsuit and the time it takes to dispose of it have stimulated interest in alternatives to resolving disputes through the traditional judicial process. A steadily increasing number of experts in insurance companies and in the business community at large believe that in certain cases disagreement among parties can be settled as effectively, and at a lower cost in time and money, through tech-

niques that bypass the court system. Based on arbitration or negotiation, these techniques have become known as alternative dispute resolution programs, or ADRs.

In May 1987, a dispute-resolution project identified as "Settlement Week" was undertaken by 10 District of Columbia judges and 100 lawyers, with impressive results. Using a variety of methods including mediation and arbitration, the project was aimed at reducing a backlog of Superior Court personal injury cases, some of which had been awaiting trial for three years. Of 730 cases handled, 35 to 40 percent reached settlement.

In New Jersey, where state law requires arbitration in auto accident cases involving injury and pain and suffering and claims for less than $15,000, the arbitration program is reported to be highly successful. Of 16,850 cases filed in 1986, nearly half were resolved without a judge or jury and half of the cases resolved were actually settled before arbitration hearings were held.

The alternative dispute resolution mechanisms, together with legislative measures that have been enacted by many states and are under consideration in others, are expected to produce significant benefits. These include a reduction in the cost of getting compensation into the hands of plaintiffs, a better balance between the rights of plaintiffs and the rights of defendants, and an environment in which businesses and their insurers can more easily predict future liabilities.

### Support for Reform

Many trade groups and broad-based coalitions across the nation are working for tort reform. Among the largest and most influential of these is the American Tort Reform Association, whose efforts are endorsed by 140 trade associations and other national organizations representing thousands of companies and a broad spectrum of the professional and business communities.

At its midyear meeting in 1986, the American Bar Association voted to oppose limits on damage awards for pain and suffering in personal injury cases, but agreed that punitive damages should be brought under tighter controls. The positions, while not binding on lawyers or state legislators, are seen as significant because they represent the first time that the ABA has taken an official stand on tort reform proposals. The ABA also recommended an alteration in the concept of joint and several liability to make it more equitable in cases with multiple defendants.

Resolution of the liability insurance crisis emerged as the top priority of the White House Conference on Small Business, held in August 1986 in Washington, D.C. Delegates representing all 50 states made several recommendations for dealing with the crisis, including a return to a fault-based standard, caps on attorneys' contingency fees, and the establishment of federal product liability standards.

Many public opinion surveys indicate that the American public looks favorably on radical change of the civil justice system. The results of a Harris poll released in June 1986 showed that a 69–24 percent majority think it is too easy for people to sue for damages, a 63–12 percent majority believe the size of most cash settlements has been excessive, and 80 percent say that lawyers' interest in big contingency fees is one of the major causes of the sharp rise in the number of liability cases being brought to court. The findings of a Harris poll conducted for Aetna Life & Casualty early in 1987 were similar.

Other surveys support those results. A survey conducted for the Insurance Information Institute by Cambridge Reports, Inc., found that 85 percent of Americans favor limits on attorneys' fees, 55 percent would limit awards in general, and 63 percent would place limits on pain and suffering awards. Nearly half of the respondents expressed support for mandatory arbitration in liability cases.

In March 1987, the Antitrust Division of the U.S. Justice Department said it had found a direct link between tort reform and insurance availability and affordability. The report cited evidence that "unanticipated changes in the manner in which tort liability has been established and damages assessed, along with the uncertainty engendered by these changes, are directly responsible for the current affordability problems in property/casualty insurance."

## State Legislation

A half dozen states, Alaska, Colorado, Connecticut, Hawaii, New York and Washington, have enacted across-the-board tort reform legislation. Where such laws have been passed, insurers have reacted by revising their underwriting guidelines and reentering markets, such as municipal and liquor liability, where coverage in some cases has been difficult to obtain.

While other states have been less responsive to calls for change, more than two-thirds of the states have passed bills dealing with one or more aspects of tort reform (see chart, pages 60–61). However, the scope of the legislation and its potential for lowering insurance costs vary considerably from state to state.

In some states, the new laws apply only to one line of insurance, such as medical malpractice or liquor liability. In others, the impact of seemingly important legislation may be diluted by major exclusions. In Minnesota, for example, pain and suffering awards are exempted from the cap on noneconomic damages. Also, some states which have modified the joint and several liability rule have excluded areas in which the rule is frequently applied, such as auto, pollution, medical malpractice and product liability.

## Effects on Claims

To help evaluate the relative effects of various types of tort reform on insurance claim costs, the Insurance Services Office (ISO) initiated two studies of commercial liability insurance claims. The first, which covers 24 states in which tort reforms have been enacted, is an evaluation of probable payments for six standardized bodily injury liability insurance claims under both the reformed tort laws and the laws as they existed prior to reform. The second study will analyze data for specific claim files in 27 states in which changes in tort laws have taken place.

In May 1987, ISO published the results of the Claim Evaluation Project, which indicated that most of the tort law changes that have become law or have been proposed in the 24 states would have a highly selective impact on the types of claim payments examined. However, a package of three basic tort reforms—abolition of the joint and several liability rule, a $250,000 ceiling on awards for noneconomic damages and modification of the collateral source rule—could reduce the costs of some liability insurance claims in all 24 states. For certain types of claims, the impact might be significant, the study indicated.

The independent study, a product of the national consulting firm, Hamilton, Rabinovitz & Alschuler, Inc., pointed out that the estimates obtained in these standardized claim contexts cannot be generalized to the full claim portfolio of any insurer or of the insurance industry as a whole. Therefore, the results are not directly relevant to issues of insurance pricing.

A report on the findings of the second project, the Claim File Data Analysis, will be issued by late 1988.

The chart on pages 60 and 61 shows the status of tort reform legislation through August 1, 1987. An explanation of the terms which appear as column headings in the chart follows.

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## Explanation of Tort Reform Provisions

**Joint & Several Liability:** A rule under which defendants only minimally responsible for any injury may be required to pay the full amount of the damages. Reform measures may completely eliminate this rule or modify it. Modification may limit the rule's application in some way. For example, many states now forbid application of the rule to noneconomic damages, such as pain and suffering. The measure may apply to all tort actions or only to one specific type of case, such as medical malpractice, or may exclude one or more key areas in which joint and several liability is frequently applied, such as auto, pollution and medical malpractice cases.

**Punitive Damages:** Originally designed to punish defendants who showed a wanton disregard for safety, punitive damage awards no longer are limited to such cases and may exceed substantially the amount of compensatory damages awarded. Reform measures may require punitive damage awards to be paid to the state; set limits on the amount that may be awarded or the amount that may be awarded relative to the amount of compensatory damages; limit the type of

case in which they may be awarded, or require hearings to establish a case for punitive damages before they may be sought in court.

**Periodic Payments:** In most cases, unless otherwise agreed upon by the litigants or mandated by court, judgments may be only lump sum awards. Under a periodic payment system, payments are made over the lifetime of the plaintiff or for the period of disability. Periodic payments are most frequency permitted or required in cases where damages exceed a certain amount.

**Contingent Fees:** The most common arrangement for payment of plaintiffs' attorneys in liability cases is the "contingency fee." Under this arrangement, the attorney receives as a fee an agreed-upon percentage (commonly 30 percent to 50 percent) of any final award or settlement made to the plaintiff. Reform legislation has taken different approaches: a sliding scale in terms of a percentage of the award; court approval of what is considered a reasonable fee; limiting attorneys' fees to a certain percentage of the amount actually recovered by the plaintiff, or court approval of fees over a certain amount.

**Frivolous Suit Penalties:** Refers to measures designed to deter pursuit of frivolous claims and the raising of frivolous defenses. These laws generally provide that where a party is found to have acted frivolously in bringing a suit or raising a defense, that party may be found liable for payment of the other party's reasonable attorney and expert witness fees and court costs. Usually, such costs are paid by the party who incurs them.

**Collateral Source Rule:** Refers to a rule of evidence that bars the introduction of any information indicating a person has been compensated or reimbursed by any source other than the defendant. Approaches taken by modifying legislation include: permitting consideration of compensation or payments received from some or all collateral sources; requiring that any award be offset by the amount of collateral source payments, and allowing the defendant to introduce evidence of compensation to the plaintiff from collateral sources. The jury is instructed to reduce any award for economic loss accordingly.

**Government Liability:** Reform measures for governments limit the liability of these entities in some way. Generally, the provisions limit or eliminate liability for government or citizen boards, government employees and officials, or certain groups under contract to the government entity. Other measures restrict the application of joint and several liability cases involving local governments.

**Dram Shop Liability:** Measures generally limit liability of sellers of liquor or put a ceiling on damages in dram shop actions. Reform measures generally limit liability to specific circumstances. For example, some require proof that a provider or seller of alcohol knew that the drinker was visibly drunk when served and that the intoxication was the cause of the death or the injury resulting in the lawsuit. Others remove liability from servers of alcohol unless they provide liquor illegally. Some states have capped awards assessed against liquor servers.

**Noneconomic Damages Cap:** In some states, laws limit the liability of defendants in liability suits in one of several ways: by limiting recovery of a particular type of damages (usually noneconomic damages such as pain and suffering); by limiting the total amount of damages recoverable, or by placing an absolute cap on liability. Reform measures may apply to all tort suits or only to specific types.

**State-of-the-Art Defense** (not included in chart, but see page 55): Allows a defendant manufacturer to show that it manufactured its products in accordance with the state of scientific or technological knowledge at the time of manufacture or in compliance with government or industry safety standards.

## Major Tort Reform Measures Enacted by State, 1986 through August 1, 1987

| State | Joint & Several Liability | Punitive Damages | Periodic Payments | Contingent Fees | Frivolous Suits & Defenses | Collateral Source Rule | Government Liability | Dram Shop Liability |
|---|---|---|---|---|---|---|---|---|
| Ala. | | X | X | | X | X | | |
| Alaska | X | X | X | | | X | | |
| Ariz. | X | | | | | | | X |
| Ark. | | | | | | | | |
| Calif. | X | | | | | | | |
| Colo. | X | X | | X | X | X | X | X |
| Conn. | X[1] | | X | X | X | X | X | |
| Del. | | | | | | | | |
| D.C. | | | | | | | | |
| Fla. | X[2] | X | X | | X | X | | |
| Ga. | X | X[3,4] | | | X | X | X | |
| Hawaii | X | X | | X | X | X | X | |
| Idaho | X | | X | | | | | X |
| Ill. | X | X | | | X | X | X | |
| Ind. | | | | | X | X | | X |
| Iowa | | X | X | | X | X | X | X |
| Kan. | | X | M | M | | M[5] | | |
| Ky. | | | | | | | | |
| La. | X | | | | | | | X |
| Maine | | | M | M | | | | X |
| Md. | | | X | | | M | X | |
| Mass. | | | M | M | | M | | |
| Mich. | X | | X | | X | X | X | X |
| Minn. | | X | | | X | X | X | |
| Miss. | | | | | | | X | X |
| Mo. | X | X | M | | | X | | |
| Mont.[6] | X | X | X[7] | | | X | X | |
| Neb. | | | | | | | | |
| Nev. | X[8] | | | | | | | |
| N. H. | | X | | X | X | | X | X |
| N. J. | | | | | | | | X |
| N. M. | X | | | WC | | | | X |
| N. Y. | X | | X | | X | X | X | |
| N. C. | | | | | X | | | |
| N. D. | X | X | | | X | X | X | X[9] |
| Ohio | | | | | | | | |
| Okla. | | X | | | X | | | |
| Ore. | X | X | | X | X | X | | X |
| Pa. | | | | | | | | |
| R. I. | | | X | | X | M | X | |
| S. C. | | | | | | | X | |
| S. D. | X | X | X | | | | X | |
| Tenn. | | | | | | X | X | X |
| Texas | X | X | | | X | | X | X |
| Utah | X | | M | | | | | X |
| Vt. | | | | | | | | X |
| Va. | | X | | | X | | X | |
| Wash. | X | | X | X[10] | | | WC | X |
| W. Va. | M | | | | M | | X | |
| Wis. | | | | M | | | | |
| Wyo. | X | | | | X | | X | X |

X: Indicates that a tort reform measure was enacted, but is not reflective of the effectiveness or desirability of that reform. M: Applies to medical malpractice only. WC: Applies to workers' compensation.

[1] Legislation in May 1987 restored joint and several liability to economic damages; [2]for cases with damages exceeding $25,000; [3]may be awarded only once for each act or omission, regardless of the number of cases arising from the act or omission; [4]$250,000 cap excludes intentional tort and product liability; [5]struck down in 1987 by Kansas Supreme Court; [6]Montana Supreme Court ruling may nullify some measures; [7]optional for judgments over $50,000; [8]major exceptions; [9]some measures subject to sunset provision; [10]court has right to review legal fees for propriety.

Source: Compiled by Insurance Information Institute, based on data from trade associations and other groups.

| Noneconomic Damages Cap | Remarks | State |
|---|---|---|
| $400,000 (M) | D&O reform | Ala. |
| 500,000 | No damage cap for badly impaired; nonprofit D&O reform; prejudgment interest principle | Alaska |
| | | Ariz. |
| | | Ark. |
| | | Calif. |
| 250,000[11] | Nonprofit D&O reform; no cap for phys. impairment or disfigurement | Colo. |
| | Corporate D&O reform | Conn. |
| | | Del. |
| 450,000[12] | | D.C. |
| | | Fla. |
| | Govt. suits up to insurance coverage only; nonprofit D&O reform | Ga. |
| 375,000 | Arbitration authorized for claims under $150,000 | Hawaii |
| 400,000[13] | Nonprofit D&O reform | Idaho |
| | | Ill. |
| | Nonprofit D&O reform | Ind. |
| | Product liability reform | Iowa |
| 250,000[14] | Product liability, D&O reform | Kan. |
| | | Ky. |
| | | La. |
| | | Maine |
| 350,000 | Nonprofit D&O reform; damages cap excludes punitive damages | Md. |
| 500,000 (M) | Exceptions to malpractice cap | Mass. |
| 225,000 (M) | Exceptions to malpractice cap; product liability exception to joint and sev. liability measure | Mich. |
| 400,000[15] | Nonprofit D&O reform | Minn. |
| | Sovereign immunity reinstated | Miss. |
| 350,000 (M) | Product liability reform | Mo. |
| | Product liability reform | Mont. |
| | Reduced prejudgment interest | Neb. |
| | | Nev. |
| 875,000 | Nonprofit D&O reform | N. H. |
| | Product liability reform | N. J. |
| | | N. M. |
| | Nonprofit D&O reform; some exceptions to joint and several measure | N. Y. |
| | | N. C. |
| | | N. D. |
| | Prejudgment interest rate lowered | Ohio |
| 500,000 | | Okla. |
| | | Ore. |
| | | Pa. |
| | | R. I. |
| 1,000,000 (M)[16] | | S. C. |
| | Nonprofit D&O reform | S. D. |
| | | Tenn. |
| 250,000 (M) | Damages cap excludes punitive damages | Texas |
| | | Utah |
| | | Vt. |
| | Tort claims act extended to transportation districts; D&O reform; compensation fund for severely brain-damaged infants | Va. |
| X | Damage caps based on life expectancy and wages | Wash. |
| 1,000,000 (M) | | W. Va. |
| 1,000,000 (M) | | Wis. |
| | Nonprofit D&O reform | Wyo. |

[11] Damages up to $500,000 at court's discretion; [12] struck down in 1987 by Florida Supreme Court; [13] subject to sunset provision; [14] two measures passed: 1986—medical malpractice only: $250,000 cap on all noneconomic damages, $1 million cap on all damages; 1987—all other tort cases: $250,000 cap on pain and suffering damages only; [15] excludes pain and suffering, disability or disfigurement; [16] includes economic damages.

## Health Care Costs

The cost of health care in the United States in recent years has been the equivalent of more than 10 percent — 10.9 percent in 1986 — of the nation's gross national product, according to the Department of Health and Human Services (HHS). In 1986, the national health expenditure of some $458 billion amounted to an outlay of $1,837 for every man, woman and child in the country. The agency said the overall cost of health care was 8.4 percent higher in 1986 than in 1985.

HHS said hospital care accounted for $180 billion, or 39 percent of the nation's total health expenditures, in 1986. A steady increase in hospital room costs has been a major factor in the rising cost of health care.

The average rate for a semiprivate room in the United States was $243.21 as of January 1987, an 8.6 percent increase over the January 1986 figure of $223.85, according to a survey by the Health Insurance Association of America. State average rates ranged from a low of $125.25 in Mississippi to a high of $373.97 in the District of Columbia. A decline in average rates was recorded in one state—Nevada.

### Hospital Semiprivate Room Rates*, January 1986-87

| State | 1987 | 1986 | State | 1987 | 1986 |
|---|---|---|---|---|---|
| Alabama | $188.46 | $167.75 | Montana | $220.50 | $204.89 |
| Alaska | 371.53 | 334.16 | Nebraska | 174.02 | 162.69 |
| Arizona | 259.24 | 208.46 | Nevada | 226.66 | 227.20 |
| Arkansas | 153.69 | 148.72 | New Hampshire | 219.12 | 208.52 |
| California | 327.01 | 299.47 | New Jersey | 215.28 | 200.23 |
| Colorado | 243.30 | 224.55 | New Mexico | 226.91 | 211.80 |
| Connecticut | 247.15 | 218.48 | New York | 262.04 | 240.27 |
| Delaware | 278.85 | 260.20 | North Carolina | 151.19 | 142.93 |
| District of Columbia | 373.97 | 311.34 | North Dakota | 186.44 | 172.54 |
| Florida | 208.37 | 193.37 | Ohio | 252.89 | 236.54 |
| Georgia | 159.81 | 147.21 | Oklahoma | 176.97 | 168.10 |
| Hawaii | 266.51 | 252.89 | Oregon | 263.10 | 240.43 |
| Idaho | 282.68 | 204.60 | Pennsylvania | 294.37 | 278.48 |
| Illinois | 279.44 | 257.45 | Rhode Island | 247.67 | 221.37 |
| Indiana | 207.65 | 192.22 | South Carolina | 155.74 | 146.94 |
| Iowa | 194.32 | 185.70 | South Dakota | 174.12 | 171.24 |
| Kansas | 213.09 | 196.58 | Tennessee | 170.08 | 147.34 |
| Kentucky | 198.77 | 187.02 | Texas | 184.12 | 170.28 |
| Louisiana | 187.76 | 166.05 | Utah | 244.19 | 204.58 |
| Maine | 221.76 | 209.07 | Vermont | 256.77 | 234.39 |
| Maryland | 219.10 | 200.24 | Virginia | 180.45 | 172.67 |
| Massachusetts | 262.23 | 240.11 | Washington | 266.23 | 248.40 |
| Michigan | 295.81 | 273.07 | West Virginia | 184.36 | 173.49 |
| Minnesota | 228.01 | 209.24 | Wisconsin | 174.21 | 169.02 |
| Mississippi | 125.25 | 115.71 | Wyoming | 179.49 | 169.83 |
| Missouri | 209.35 | 193.99 | Puerto Rico | 126.71 | 118.50 |

*Data apply to medical-surgical semiprivate accommodations and exclude pediatric, intensive care, cardiac care, extended care, self-care, psychiatric and tuberculosis beds. Data for individual states may not be comparable for 1986 and 1987. In some states, hospitals dropping in and out of the survey make it difficult to compare the data from one year to the next.

Source: Health Insurance Association of America.

# 6. Losses by Category

## Fire Losses

Fire losses in the United States increased by about 7.4 percent in 1986, to a record $8.33 billion from the 1985 total of $7.75 billion. The per capita fire loss rose to $34.80 from the 1985 figure of $32.70. While the trend of fire losses has been generally upward over the years, the ratio of such losses to the aggregate value of property subject to such losses has been declining for many years as a result of countrywide fire prevention efforts.

### U.S. Fire Losses*
### 1875-1986

| Year | Property Loss | Loss Per Capita | Year | Property Loss | Loss Per Capita |
|---|---|---|---|---|---|
| 1875 | $ 78,102,000 | $1.73 | 1960 | $1,107,824,000 | $ 6.16 |
| 1880 | 74,643,000 | 1.49 | 1970 | 2,238,000,000 | 11.41 |
| 1890 | 108,994,000 | 1.73 | 1980 | 5,579,000,000 | 24.56 |
| 1900 | 160,930,000 | 2.12 | 1981 | 5,625,000,000 | 24.53 |
| 1910 | 214,003,000 | 2.32 | 1982 | 5,894,000,000 | 25.61 |
| 1920 | 447,887,000 | 4.21 | 1983 | 6,320,000,000 | 27.20 |
| 1930 | 501,981,000 | 4.08 | 1984 | 7,601,701,000 | 32.35 |
| 1940 | 286,491,000 | 2.16 | 1985 | 7,752,525,000 | 32.70 |
| 1950 | 648,909,000 | 4.27 | 1986 | 8,330,000,000 | 34.80 |

*Including allowances for uninsured and unreported losses.

Source: Insurance Services Office

## Fire Fatalities

Fire deaths in the United States totaled some 4,800 in 1986, 100 fewer than in the preceding year, according to a National Safety Council estimate. The Council said approximately 3,900, or 81 percent, of the victims perished in residential fires.

Highest death rate by fire is among persons 65 years of age and older. The death rate among children under 5 years of age is the second highest. Rates shown below are deaths per 100,000 population in each age group resulting from burns, asphyxiation or being struck by falling objects during fires.

### Fire Deaths per 100,000 Population

| Ages | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| **0-4** | 4.9 | 5.7 | 5.2 | 5.1 | 5.1 | 4.5 | 4.3 | 4.2 | 3.9 | 4.1 |
| **5-14** | 1.5 | 1.6 | 1.6 | 1.4 | 1.4 | 1.4 | 1.2 | 1.4 | 1.5 | 1.3 |
| **15-24** | 1.5 | 1.3 | 1.4 | 1.3 | 1.2 | 1.1 | 1.0 | 1.1 | 1.3 | 1.3 |
| **25-44** | 1.9 | 1.8 | 1.6 | 1.6 | 1.5 | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 |
| **45-64** | 3.4 | 3.2 | 3.0 | 2.8 | 2.7 | 2.3 | 2.2 | 2.1 | 1.9 | 1.8 |
| **65 and over** | 7.8 | 7.0 | 6.7 | 6.5 | 6.3 | 5.6 | 5.4 | 5.1 | 4.9 | 4.5 |

Source: National Safety Council

## Leading Causes of Fires

Defects in, or mishandling of, heating equipment is responsible for more residential fires than any other single cause, while arson continues to be far out in front as the leading cause of nonresidential fires.

A report by the United States Fire Administration shows that heating-related ignitions were blamed for about one of every four residential fires in the United States in 1985, the most recent year for which the data were available. Cooking-related incidents were listed as the second leading cause of residential fires and the leading cause of injuries resulting from fires in homes.

As has been the case in previous years, careless smoking was shown to be the leading cause of residential fire fatalities, with involvement in 22.3 percent of all home fire deaths in 1985. Most of the smoking-caused deaths occur at night and involve the ignition of upholstery or bedding.

Arson caused a larger amount of dollar losses in residential fires than any other single cause.

The U.S. Fire Administration listed arson as the cause in 1985 of almost one of every four fires in nonresidential structures, including schools, restaurants, garages and manufacturing plants. In nonresidential fires, arson was also held responsible for 35 percent of the dollar losses as well as 14.7 percent of all fatalities and 22.1 percent of all injuries.

A summary of the U.S. Fire Administration's findings as to the leading causes of fires in 1985 appears in the table below.

### Causes of Reported Fires, 1985

| | Residential | | | | Non-Residential | | | |
|---|---|---|---|---|---|---|---|---|
| Cause | Fires % | Deaths % | Injuries % | Dollar Loss % | Fires % | Deaths % | Injuries % | Dollar Loss % |
| Incendiary/Suspicious | 10.4% | 9.6% | 9.6% | 15.8% | 24.4% | 14.7% | 22.1% | 35.0% |
| Children Playing | 4.0 | 5.8 | 9.0 | 3.7 | 0.8 | 0.0 | 1.4 | 0.5 |
| Smoking | 6.5 | 22.3 | 14.5 | 5.7 | 8.0 | 10.7 | 8.1 | 2.9 |
| Heating | 25.4 | 14.9 | 12.1 | 15.6 | 7.5 | 8.0 | 7.1 | 4.7 |
| Cooking | 16.2 | 5.2 | 18.6 | 6.2 | 11.5 | 0.0 | 13.1 | 3.3 |
| Electrical Distribution | 7.2 | 6.2 | 5.6 | 12.2 | 12.9 | 1.3 | 9.5 | 8.8 |
| Appliances | 5.5 | 1.4 | 4.4 | 4.3 | 7.8 | 1.3 | 7.4 | 2.8 |
| Open Flame | 5.2 | 3.1 | 5.7 | 4.1 | 6.0 | 6.7 | 9.2 | 2.8 |
| Other Heat or Sparks | 1.2 | 1.5 | 1.6 | 1.2 | 1.2 | 9.3 | 2.0 | 0.8 |
| Other Equipment | 6.4 | 3.5 | 5.8 | 5.6 | 7.2 | 4.0 | 9.2 | 5.9 |
| Natural Causes | 1.3 | 0.3 | 0.7 | 1.8 | 1.4 | 0.0 | 0.6 | 4.6 |
| Exposure | 2.6 | 0.8 | 0.6 | 4.2 | 2.7 | 5.3 | 0.7 | 3.8 |
| Unknown | 8.1 | 25.3 | 11.9 | 19.7 | 8.5 | 38.7 | 9.7 | 24.2 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Note: Columns of figures may not add to 100 percent because of the effects of rounding.

Source: U. S. Fire Administration, Federal Emergency Management Agency

## Arson

Arson—the intentional setting of a fire—has been called the worst man-made disaster in America. Each year in the United States, incendiary or suspicious fires take hundreds of lives and cause property damage well in excess of a billion dollars.

Data from the Federal Bureau of Investigation and the National Fire Protection Association (NFPA) suggest that a continuing campaign to reduce the incidence of arson has been at least moderately successful in recent years.

The NFPA said the number of structural fires of incendiary or suspicious origin declined by 28.5 percent from 1981 to 1984, rose by some 5.9 percent in 1985 and then dropped by 5.1 percent in 1986. The estimated 111,000 such fires in 1986 resulted in dollar losses of $1.68 billion, up slightly from the 1985 figure.

On the other hand, the FBI said the number of arson offenses on which it had complete reports (fewer than the number reported by the NFPA), rose by about 5 percent in 1986, but that dollar losses were down by almost 8 percent from $1.3 billion to $1.2 billion.

The NFPA report for 1986 said that 705 civilians lost their lives in incendiary or suspicious fires in structures that year, 5.2 percent more than in 1985. The NFPA also reported a 25.3 percent increase in vehicular fires of incendiary or suspicious origin in 1986. The 57,000 such fires resulted in property losses estimated at $151 million.

Studies have indicated that vandalism is the most common motive for arson, a conclusion supported by the fact that about one of every four persons arrested for the offense is under age 15. Nearly half of those arrested are under age 20.

The insurance industry for many years has helped to spearhead efforts to combat arson. The Insurance Committee for Arson Control, representing more than 2,000 insurers, serves as a catalyst for the industry's arson efforts and as a liaison with other groups devoted to arson control.

### Incendiary and Suspicious Fires in Structures, 1986 Estimates

| | Fires | | Civilian Deaths | | Dollar Loss* | |
|---|---|---|---|---|---|---|
| | Estimate | Change from 1985 | Estimate | Change from 1985 | Estimate | Change from 1985 |
| Structural Fires of Incendiary Origin | 71,000 | + 3.7% | 505 | + 11.0% | $1,162,000,000 | + 8.7% |
| Structural Fires of Suspicious Origin | 40,000 | − 17.5 | 200 | − 7.0 | 515,000,000 | − 14.3 |
| Totals | 111,000 | − 5.1 | 705 | + 5.2 | 1,677,000,000 | + 4 |

*Includes direct property losses only; does not include indirect losses such as business interruption or temporary shelter costs. No adjustment was made for inflation in the year-to-year comparisons.

Source: National Fire Protection Association estimates.

## Structural Fires

Fires in residential structures accounted for 72.7 percent of structural fires in the United States in 1986, according to the National Fire Protection Association (NFPA). Residential fires also accounted for 60.9 percent of the dollar losses from structural fires, estimated by the NFPA at $5.837 billion.

The NFPA said 81.5 percent of civilian fire deaths and 70.9 percent of civilian fire injuries occurred in residential blazes.

### Structural Fires by Type of Use, 1986 Estimates*

| Property Use | | Estimated Number of Fires | % Change from 1985 | % of Structural Fires | % of Dollar Losses** |
|---|---|---|---|---|---|
| Public Assembly | | 22,500 | – 4.3% | 2.8% | 6.1% |
| Educational | | 12,500 | – 7.4 | 1.6 | 2.1 |
| Institutional | | 21,500 | – 4.4 | 2.7 | .3 |
| Residential | | 581,500 | – 6.5 | 72.7 | 60.9 |
| One- and Two-Family Dwellings*** | 468,000 | | | | |
| Apartments | 97,500 | | | | |
| Hotels and Motels | 8,000 | | | | |
| Other | 8,000 | | | | |
| Stores and Offices | | 45,000 | – 8.2 | 5.6 | 11.3 |
| Industry, Utility, Defense | | 34,000 | – 6.9 | 4.3 | 9.2 |
| Storage in Structures | | 46,000 | – 10.7 | 5.7 | 7.7 |
| Special Structures | | 37,000 | – 9.8 | 4.6 | 2.3 |
| Totals | | 800,000 | – 6.9 | | |

*Based on data reported to the National Fire Protection Association by fire departments responding to the 1986 National Fire Experience Survey.

**Direct property losses only.

***Includes mobile homes.

Source: National Fire Protection Association estimates.

### Civilian Fire Deaths and Injuries by Property Use, 1986 Estimates

| Property Use | Deaths | | % Change from 1985 | % of All Civilian Fire Deaths | Civilian Fire Injuries |
|---|---|---|---|---|---|
| Residential | | 4,770 | – 5.1% | 81.5% | 19,025 |
| One- and Two-Family Dwellings* | 4,005 | | – .4 | 68.5 | 14,650 |
| Apartments | 650 | | – 24.9 | 11.1 | 3,925 |
| Hotels and Motels | 50 | | – 41.2 | .8 | 325 |
| Other Residential | 65 | | + 18.2 | 1.1 | 125 |
| Non-Residential Structures | | 215 | – 10.4 | 3.7 | 3,725 |
| Highway Vehicles | | 665 | – 13.6 | 11.4 | 2,850 |
| Other Vehicles** | | 70 | + 27.3 | 1.2 | 275 |
| All Other Categories | | 130 | + 39.8 | 2.2 | 950 |
| Total | | 5,850 | – 5.4 | | 26,825 |

*Includes mobile homes.

**Includes trains, boats, aircraft, farm vehicles and construction vehicles.

Source: National Fire Protection Association estimates.



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## Multiple-Death Fires

Nine persons lost their lives in each of four fires in the United States during 1986, according to the National Fire Protection Association (NFPA). For the first time in more than 15 years, there were no fires resulting in as many as 10 fatalities.

The NFPA noted that while 97 persons died in a hotel fire in San Juan, Puerto Rico, on Dec. 31, that incident was not included in its annual study of multiple-death fires, whose scope is confined to the experience of the 50 states and the District of Columbia.

Altogether, in 1986, 267 multiple-death fires took the lives of 998 civilians and firefighters. The number of such fires was 2.9 percent lower than in 1985, and the number of resulting deaths was down by 9.9 percent.

The NFPA pointed out that while multiple-death fires (those which kill at least three persons) account for just .01 percent of the fires that occur in the United States annually, they result in almost 20 percent of all civilian fire deaths each year.

Historically, there have been 22 fires in the United States in which 100 or more persons have perished, including two—in Peshtigo, Wis., in 1871 and New York City in 1904—which claimed more than 1,000 lives each. The most tragic multiple-death fire since 1970 occurred on May 28, 1977, when 165 persons died in a supper club fire in Southgate, Ky. As shown in the second table below, of the nation's 10 worst multiple-death fires, the most recent occurred more than 40 years ago when 492 persons lost their lives in a night club fire in Boston, Mass., in 1942.

### The Most Tragic Multiple-Death Fires of 1986

| Date | Location | Property Use | Deaths |
|---|---|---|---|
| Jan. 26 | Washington, D.C. | Two-story row house | 9 |
| Apr. 4 | San Francisco, Calif. | Industrial complex | 9 |
| May 9 | Philadelphia, Pa. | Apartment building | 9 |
| Feb. 4 | Crystal Springs, Miss. | Furniture store | 9 |
| June 21 | Kelso, Wash. | Single-family home | 8 |
| Oct. 25 | Minneapolis, Minn. | Two-family dwelling | 8 |
| Dec. 7 | Bamberg, S.C. | Dwelling | 8 |

Source: National Fire Protection Association

### The 10 Worst Multiple-Death Fires in the United States

| Date | Place | Deaths |
|---|---|---|
| Oct. 8, 1871 | Peshtigo, Wis., and environs | 1,152 |
| June 15, 1904 | New York, N.Y., SS General Slocum | 1,030 |
| Dec. 30, 1903 | Chicago, Ill., Iroquois Theatre | 602 |
| Oct. 12, 1918 | Cloquet, Minn., and environs | 559 |
| April 18, 1906 | San Francisco, Calif., earthquake-fire | 500 |
| Nov. 28, 1942 | Boston, Mass., Cocoanut Grove Night Club | 492 |
| Sept. 1, 1894 | Hinckley, Minn., and environs | 413 |
| June 30, 1900 | Hoboken, N.J., North German Lloyd Steamship pier and ships | 326 |
| April 21, 1930 | Columbus, Ohio, State Penitentiary | 320 |
| Dec. 5, 1876 | Brooklyn, N.Y., Conway's Theatre | 283 |

Source: Compiled by the Insurance Information Institute

## Large-Loss Fires

A fire in a multi-tenanted general storage warehouse in Elizabeth, N.J. in February 1985, resulted in damage estimated by the National Fire Protection Association (NFPA) at $123 million. The blaze, which began in a section of the warehouse used to store aerosol products, was the most costly of 30 verified large-loss fires during 1985 in which property damage reached or exceeded $5 million.

What may have been an even more costly fire in the same year occurred in Passaic, N.J., involving more than 18 acres of industrial and residential properties and destroying at least 18 industrial buildings. The NFPA said reports of property damage ranged as high as $400 million, but the figure had not been verified. The Passaic fire also destroyed about 14 dwellings and left more than 300 persons homeless as well as at least 2,200 unemployed.

Beginning with the great Chicago fire of 1871, in which more than 17,000 buildings were destroyed, at least 20 fires in the United States have caused property damage of $50 million or more (see table on the next page). Three of those occurred in 1985: the $123 million fire in Elizabeth, a $75 million wild land fire in California, and a $70 million fire which destroyed a racetrack grandstand in Arlington Heights, Ill.

### U.S. Fires Causing Property Damage of $5 Million or More, 1985

| Date | Place | Property Use | Estimated Loss |
|---|---|---|---|
| Feb. 21 | Elizabeth, N.J. | Aerosol products warehouse | $123,000,000 |
| July 1 | Camarillo, Calif. | Wild land, 118,000 acres | 75,403,000 |
| July 31 | Arlington Heights, Ill. | Racetrack grandstand | 70,000,000 |
| May 17 | Bunnell, Fla. | Brush and dwellings | 40,800,000 |
| Nov. 5 | Mount Belvieu, Tex. | LP-gas storage | 40,000,000 |
| Jan. 5 | Erath, La. | Gas manufacturing plant | 30,000,000 |
| Jan. 23 | Roxana, Ill. | Oil refinery | 29,000,000 |
| July 6 | King City, Calif. | Wild land, 50,000 acres | 26,219,000 |
| Feb. 18 | Holyoke, Mass. | Paper product packaging | 25,000,000 |
| July 1 | San Luis Obispo, Calif. | Wild land, 74,640 acres | 24,200,000 |
| July 7 | Toledo, Ohio | Multi-tenanted warehouse | 18,000,000 |
| July 26 | Warren, Ohio | Motor vehicle manufacturer | 15,000,000 |
| July 2 | Florence, S.C. | General storage warehouse | 14,000,000 |
| July 6 | Comanche, Ill. | Chemical manufacturing plant | 13,000,000 |
| July 2 | Los Angeles, Calif. | Brush and dwellings | 11,200,000 |
| July 2 | Houston, Tex. | General storage warehouse | 11,000,000 |
| Dec. 14 | Louisville, Ky. | Church | 10,500,000 |
| Jan. 15 | Hoboken, N.J. | Building under demolition and exposures | 10,000,000 |
| May 18 | Parksburg, Wyo. | Chemical storage warehouse | 10,000,000 |
| Nov. 21 | Tioga, N. D. | Gas processing plant | 10,000,000 |
| June 30 | San Diego, Calif. | Brush and dwellings | 8,589,000 |
| Jan. 24 | Houston, Tex. | Office building | 7,000,000 |
| Apr. 23 | Charlotte, N. C. | Fertilizer plant | 7,000,000 |
| July 7 | Sacramento, Calif. | Brush and dwellings | 7,000,000 |
| July 29 | Mulberry, Fla. | Fertilizer plant | 6,000,000 |
| July 31 | Fort Worth, Tex. | Supermarket | 5,500,000 |
| Aug. 12 | Guernville, Calif. | Lumber, building supplies | 5,500,000 |
| May 15 | Missoula, Mont. | Wood, paper storage | 5,220,200 |
| Dec. 31 | Council Bluffs, Iowa | Electric generating plant | 5,000,000 |
| Mar. 20 | Meridian, Miss. | Appliance store and exposures | 5,000,000 |

Source: National Fire Protection Association

The most costly fire in the United States was the San Francisco fire of 1906. The estimated loss from that fire in terms of 1982 dollars amounts to more than $3.5 billion.

### The Most Costly Fires in the United States

| Date | Place | Property Destroyed | Estimated Loss |
|---|---|---|---|
| April 18, 1906 | San Francisco, Calif. | 28,000 buildings | $350,000,000 |
| Oct. 8-10, 1871 | Chicago, Ill. | 17,340 buildings | 175,000,000 |
| Nov. 12, 1984 | Tinker AFB, Okla. | Jet engine repair facility | 138,000,000 |
| Feb. 21, 1985 | Elizabeth, N.J. | Aerosol products warehouse | 123,000,000 |
| July 23, 1984 | Romeoville, Ill. | Oil refinery | 100,000,000 |
| June 6, 1982 | Falls Township, Pa. | Retail distribution center | 100,000,000 |
| Nov. 25, 1982 | Minneapolis, Minn. | Bank building | 91,000,000 |
| July 1, 1985 | Camarillo, Calif. | Wild land, 118,000 acres | 75,403,000 |
| Nov. 9, 1872 | Boston, Mass. | 776 buildings | 75,000,000 |
| Sept. 1, 1979 | Deer Park, Texas | Tank ship | 70,000,000 |
| Nov. 28, 1981 | Lynn, Mass. | 31 buildings | 70,000,000 |
| July 31, 1985 | Arlington Heights, Ill. | Racetrack grandstand | 70,000,000 |
| Apr. 16, 1947 | Texas City, Texas | Waterfront industrial area | 67,000,000 |
| Feb. 27, 1975 | New York, N.Y. | Telephone central office | 56,500,000 |
| Feb. 7, 1904 | Baltimore, Md. | 80 city blocks in business section | 50,000,000 |
| Aug. 12, 1953 | Livonia, Mich. | Auto transmission plant | 50,000,000 |
| Dec. 5, 1970 | Linden, N.J. | Oil refinery, nearby buildings | 50,000,000 |
| Jan. 20, 1980 | Borger, Texas | Refinery | 50,000,000 |
| Nov. 21, 1980 | Las Vegas, Nev. | Hotel | 50,000,000 |
| Apr. 21, 1982 | Anaheim, Calif. | 51 buildings | 50,000,000 |

Source: Compiled by the Insurance Information Institute.

## Civil Disorders

Rioting which exploded in Miami, Fla., in May 1980 resulted in the most costly insured losses on record growing out of civil disorders. Of the 10 most costly civil disorders, all but the Miami violence and a disturbance in New York City, which occurred during a widespread power outage, occurred in the 1960s.

### The 10 Most Costly U.S. Civil Disorders

| Date | Locale | Estimated Insured Loss |
|---|---|---|
| May 17-19, 1980 | Miami | $65,250,000 |
| Aug. 11-17, 1965 | Los Angeles (Watts Section) | 44,000,000 |
| July 23, 1967 | Detroit | 41,500,000 |
| July 13-14, 1977 | New York City | 28,000,000 |
| April 4-9, 1968 | Washington, D.C. | 24,000,000 |
| July 12, 1967 | Newark | 15,000,000 |
| April 6-9, 1968 | Baltimore | 14,000,000 |
| April 4-11, 1968 | Chicago | 13,000,000 |
| April 4-11, 1968 | New York City | 4,200,000 |
| April 4-11, 1968 | Pittsburgh | 2,000,000 |

Source: Compiled by the Insurance Information Institute.

## The Catastrophe Record, 1986

Insured catastrophe losses in the United States dropped below the billion dollar mark in 1986 for the first time in five years. The estimated total property loss figure of $871,516,250 was 69 percent lower than the all-time high of $2.82 billion recorded in 1985.

A catastrophe, in the language of the insurance industry, is an exceptionally severe loss, most often the result of a violent windstorm, freezing or some other nature-related cause. Damage resulting from a fire or an explosion also can reach catastrophic proportions. As a rule of thumb, an event is designated a catastrophe when the insured loss appears likely to exceed $5 million.

The sharp decline in catastrophic property losses during 1986 can be traced to the absence of any single incident causing insured damage in excess of $100 million. In 1985 there were six catastrophes with losses greater than that figure, including devastating hurricanes "Elena" and "Gloria," which together left in their wake insured property damage totaling more than $962 million.

Although the National Oceanic and Atmospheric Administration reported four hurricanes reaching the United States during 1986, only two, "Bonnie" and "Charley," were of sufficient severity to be included in the catastrophe listing. They caused insured property damage of $21.3 million and $7 million, respectively.

During 1986, a total of 26 catastrophes affected portions of 30 states. The most costly occurred in mid-February, when wind, tornadoes, snow, and flooding in California, Oregon, Nevada, Wyoming and Colorado caused damage estimated at $82 million. In mid-summer, a slightly less severe storm caused $80 million in losses in Colorado and Kansas.

Texas was affected by the most catastrophes of any state—eight. Mississippi and Oklahoma each experienced five catastrophic incidents.

The estimates that follow are based on data compiled by the Property Claim Services Division of the American Insurance Services Group, Inc. They cover insured losses only, not total property damage.

### The Catastrophe Record, 1986

| Date | States | Catastrophe | Estimated Loss Payments |
|---|---|---|---|
| Feb. 5 | Texas | Wind, Hail, Tornadoes | $ 40,000,000 |
| Feb. 14-16 | California, Oregon, Nevada, Wyoming, Colorado | Wind, Tornadoes, Snow, Flooding | 82,000,000 |
| Feb. 17-21 | California, Oregon, Nevada | Wind, Tornadoes, Snow, Flooding | 42,500,000 |
| Mar. 10 | Indiana, Ohio, Kentucky | Wind, Hail, Tornadoes | 66,747,500 |
| Mar. 11-13 | Texas, Arkansas, Mississippi, Alabama, Tennessee, Kentucky | Wind, Hail, Tornadoes | 35,000,000 |
| Mar. 19 | Georgia | Wind, Tornadoes | 20,000,000 |
| Mar. 31 | Oklahoma | Wind, Hail | 10,000,000 |
| Apr. 4-6 | Texas, Oklahoma, Arkansas, Missouri | Wind, Hail, Tornadoes, Flooding | 30,000,000 |



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## The Catastrophe Record, 1986

| Date | States | Catastrophe | Estimated Loss Payments |
|---|---|---|---|
| Apr. 11-12 | Texas, Louisiana, Mississippi | Wind, Hail, Tornadoes | $ 75,000,000 |
| Apr. 19-20 | Texas, Tennessee, Kentucky, Ohio | Wind, Hail, Tornadoes | 18,000,000 |
| May 8 | Oklahoma | Wind, Hail, Tornadoes | 15,500,000 |
| May 14-15 | Texas, Oklahoma, Missouri, Illinois, Indiana, Mississippi | Wind, Hail, Tornadoes, Flooding | 50,000,000 |
| May 24 | Texas | Wind, Hail, Tornadoes, Flooding | 55,000,000 |
| May 25 | North Carolina | Wind, Hail | 15,000,000 |
| June 17-18 | North Dakota, Minnesota | Wind, Hail | 20,000,000 |
| June 21-22 | Minnesota, Wisconsin | Wind, Hail, Tornadoes | 8,500,000 |
| June 26 | Texas, Louisiana | Hurricane "Bonnie," Wind, Tornadoes, Flooding | 21,268,750 |
| July 29-30 | North Dakota | Wind, Hail | 20,000,000 |
| July 31-Aug. 2 | Colorado, Kansas | Wind, Hail, Tornadoes | 80,000,000 |
| Aug. 7 | Rhode Island, Massachusetts | Wind, Tornadoes, Flooding | 10,000,000 |
| Aug. 17-18 | North Carolina, Virginia, Maryland | Hurricane "Charley," Wind, Flooding | 7,000,000 |
| Sept. 1 | Wyoming | Wind, Hail | 15,000,000 |
| Sept. 10-14 | Mississippi | Wind, Hail, Tornadoes, Flooding | 25,000,000 |
| Sept. 19-20 | Nebraska, Iowa | Wind, Hail, Flooding | 15,000,000 |
| Sept. 22 | Nebraska | Wind, Hail, Flooding | 45,000,000 |
| Sept. 30-Oct. 5 | Oklahoma, Kansas, Missouri, Illinois, Mississippi | Wind, Hail, Tornadoes, Flooding | 50,000,000 |

Source: Property Claim Services Division, American Insurance Services Group, Inc.

During the last 10 years, 374 catastrophes have resulted in insured property losses totaling more than $13.6 billion. Twice during that period, annual losses have exceeded $2 billion, and in four other years losses have exceeded $1 billion.

Only 23 of the 374 catastrophic occurrences have been attributable to other than natural causes—fires, explosions, etc.

The following table summarizes the catastrophe record during the 10-year period from 1977 through 1986.

## The Catastrophe Record, 1977-86

| Year | Number of Catastrophes | | | Largest Single Loss | Total Estimated Loss Payments |
|---|---|---|---|---|---|
| | Natural | Other | Total | | |
| 1977 | 40 | 3 | 43 | $ 42,560,000 | $ 397,666,100 |
| 1978 | 37 | 4 | 41 | 79,000,000 | 652,813,900 |
| 1979 | 50 | 4 | 54 | 752,510,000 | 1,684,570,550 |
| 1980 | 46 | 5 | 51 | 100,000,000 | 1,177,022,900 |
| 1981 | 30 | 3 | 33 | 201,546,780 | 714,228,780 |
| 1982 | 30 | 3 | 33 | 243,500,000 | 1,528,419,000 |
| 1983 | 33 | 0 | 33 | 880,000,000 | 2,254,745,000 |
| 1984 | 26 | 0 | 26 | 276,700,000 | 1,548,257,500 |
| 1985 | 33 | 1 | 34 | 543,304,000 | 2,816,340,000 |
| 1986 | 26 | 0 | 26 | 82,000,000 | 871,516,250 |
| Totals | 351 | 23 | 374 | N.A.* | $13,645,579,980 |

*Not applicable.

Source: Compiled by Insurance Information Institute

## Earthquakes in the United States

While much of the nation's seismic activity is centered along the Pacific Coast and in Nevada, every state is vulnerable to and has felt the effect of earthquakes. One of the nation's most tragic catastrophes was the San Francisco earthquake-fire of April 18, 1906, which nearly razed the city and took an estimated 500 lives. In the East, the greatest shock was experienced in Charleston, S.C., on Aug. 31, 1886. The Charleston earthquake caused 60 deaths and $23 million in property damage.

Although insurance against earthquake damage is generally available, relatively few property owners have taken advantage of the protection it offers.

The National Oceanic and Atmospheric Administration (NOAA) identified six significant earthquakes in the United States during 1986. The only earthquake for which a dollar amount of damage was specified occurred in the Palm Springs-Morongo area of southern California July 8. Twenty-nine persons were injured and damage was estimated at $4.5 million.

Other 1986 earthquakes were reported in the Painesville-Mentor area of Ohio Jan. 31; the Fremont and San Jose areas of central California Mar. 31; the Aleutian Islands May 7; the Newport Beach and San Diego areas of southern California July 13 (29 injuries and at least 50 buildings damaged); and the California-Nevada border region July 21.

Property damage figures in the table below are given in dollar values for the years in which the earthquakes occurred. NOAA said that in terms of 1981 dollars, the 1964 Alaska earthquake and tsunami (huge sea wave caused by the quake) would show the largest magnitude of $1.19 billion. The San Fernando earthquake of 1971 would rank second at $1.05 billion; the 1906 San Francisco earthquake third at $389.3 million. It must be noted, however, that in the San Francisco incident, the fire damage was much more extensive than that attributed to the earthquake.

### The 10 Most Costly U.S. Earthquakes

| Year | Locality | Estimated Property Damage |
|---|---|---|
| 1971 | San Fernando, Calif. | $553,000,000 |
| 1964 | Alaska and West Coast of United States (tsunami damage from earthquake near Anchorage, Alaska) | 500,000,000 |
| 1952 | Kern County, Calif. | 60,000,000 |
| 1933 | Long Beach, Calif. | 40,000,000 |
| 1983 | Central California (Coalinga) | 31,000,000 |
| 1979 | Imperial County, Calif. | 30,000,000 |
| 1960 | Hawaii and West Coast of United States (tsunami damage from earthquake off the coast of Chile) | 25,500,000 |
| 1946 | Hawaii (tsunami damage from earthquake in Aleutians) | 25,000,000 |
| 1949 | Puget Sound, Wash. | 25,000,000 |
| 1906 | San Francisco, Calif. | 24,000,000* |

*The San Francisco catastrophe of 1906 also caused fire losses estimated at $350,000,000.

Source: National Geophysical Data Center, National Oceanic and Atmospheric Administration

## Hurricanes Reaching the United States

Four hurricanes struck the U.S. mainland during 1986, according to the National Oceanic and Atmospheric Administration (NOAA). Nine persons died as a result of the storms.

Only two of the four hurricanes were designated by the insurance industry as catastrophes. Together, they caused property damage of less than $30 million, and thus the amount of devastation they left in their wake fell far short of the $962 million in losses left by Hurricanes "Elena" and "Gloria" in 1985.

In the last 25 years, 42 hurricanes have reached the continental United States, causing 779 deaths.

### Hurricanes in the United States, 1962-1986

| Year | Hurricanes | Deaths* | Year | Hurricanes | Deaths* | Year | Hurricanes | Deaths* |
|---|---|---|---|---|---|---|---|---|
| 1962 | 0 | 4 | 1970 | 1 | 11 | 1978 | 0 | 35 |
| 1963 | 1 | 11 | 1971 | 3 | 8 | 1979 | 3 | 22 |
| 1964 | 4 | 49 | 1972 | 1 | 121 | 1980 | 1 | 2 |
| 1965 | 1 | 75 | 1973 | 0 | 5 | 1981 | 0 | 0 |
| 1966 | 2 | 54 | 1974 | 1 | 1 | 1982 | 0 | 3 |
| 1967 | 1 | 18 | 1975 | 1 | 21 | 1983 | 2 | 22 |
| 1968 | 1 | 9 | 1976 | 1 | 9 | 1984 | 5 | 4 |
| 1969 | 2 | 256 | 1977 | 1 | 0 | 1985 | 6 | 30 |
| | | | | | | 1986 | 4 | 9 |

*Deaths include fatalities from high winds of less than hurricane force.

Source: United States Department of Commerce—National Oceanic and Atmospheric Administration.

### The 10 Most Costly Insured Hurricanes

| Dates | Place | Hurricane | Estimated Insured Loss |
|---|---|---|---|
| 1979-Sept. 12-14 | Miss., Ala., Fla., La., Tenn., Ky., W. Va., Ohio, Pa., N.Y. | "Frederic" | $752,510,000 |
| 1965-Sept. 7-10 | Fla., La., Miss. | "Betsy" | 715,000,000* |
| 1983-Aug. 17-20 | Texas | "Alicia" | 675,520,000 |
| 1985-Aug. 30-Sept. 3 | Fla., Ala., Miss., La. | "Elena" | 543,304,000 |
| 1985-Sept. 26-27 | N.C., Va., Md., Del., Pa., N.J., N.Y., Conn., R.I., Mass., N.H., Vt., Me. | "Gloria" | 418,750,000 |
| 1970-Aug. 3 | Southeastern Texas | "Celia" | 309,950,000* |
| 1969-Aug. 17-18 | La., Miss., Ala., Florida Panhandle | "Camille" | 225,000,000* |
| 1982-Nov. 23-24 | Hawaii | "Iwa" | 137,000,000 |
| 1954-Aug. 30-31 | N.Y., Conn., R.I., Mass., Maine, N.H., N.J. | "Carol" | 129,700,000* |
| 1979-Aug. 30, Sept. 4-6 | Fla., Ga., S.C., N.C., Va., Md., D.C., Del., Pa., N.J., N.Y., Conn., Mass., P.R., V.I. | "David" | 122,070,000 |

*Fixed property loss.

Source: Compiled by Insurance Information Institute from estimates provided prior to 1984 by the American Insurance Association; from 1984 to date by the Property Claim Services Division of the American Insurance Services Group, Inc.

## Tornadoes in the United States

Despite an increase in 1986 in the number of tornadoes striking the United States, the number of resulting deaths—15—was the lowest since 1916. The National Climatic Data Center said nine of the fatalities occurred in mobile homes, of which more than 500 were damaged or destroyed by tornadoes during the year. The agency said the year's 764 tornadoes also injured 573 persons and caused property losses estimated to be in excess of $500 million.

During the last five years, 4,332 tornadoes have caused 329 deaths in the United States.

### Tornadoes in the United States, 1962-1986

| Year | Tornadoes | Deaths | Year | Tornadoes | Deaths | Year | Tornadoes | Deaths |
|---|---|---|---|---|---|---|---|---|
| **1962** | 657 | 28 | **1970** | 653 | 72 | **1978** | 788 | 53 |
| **1963** | 464 | 31 | **1971** | 888 | 156 | **1979** | 852 | 84 |
| **1964** | 704 | 73 | **1972** | 741 | 27 | **1980** | 866 | 28 |
| **1965** | 906 | 299 | **1973** | 1,102 | 87 | **1981** | 783 | 24 |
| **1966** | 585 | 98 | **1974** | 947 | 361 | **1982** | 1,046 | 64 |
| **1967** | 926 | 114 | **1975** | 920 | 60 | **1983** | 931 | 34 |
| **1968** | 660 | 131 | **1976** | 835 | 44 | **1984** | 907 | 122 |
| **1969** | 608 | 66 | **1977** | 852 | 43 | **1985** | 684 | 94 |
| | | | | | | **1986** | 764 | 15 |

Source: National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce.

### Five-Year Totals, Tornadoes by State, 1982-1986

| State | Tornadoes | Deaths | Injuries | State | Tornadoes | Deaths | Injuries |
|---|---|---|---|---|---|---|---|
| Alabama | 165 | 11 | 220 | Montana | 18 | 1 | 1 |
| Alaska | 0 | | 0 | Nebraska | 205 | 0 | 40 |
| Arizona | 15 | | 0 | Nevada | 5 | 0 | 0 |
| Arkansas | 130 | 29 | 310 | New Hampshire | 6 | 0 | 0 |
| California | 35 | 0 | 37 | New Jersey | 5 | 0 | 8 |
| Colorado | 177 | 0 | 14 | New Mexico | 18 | 0 | 0 |
| Connecticut | 5 | 0 | 0 | New York | 34 | 4 | 39 |
| Delaware | 4 | 2 | 19 | North Carolina | 75 | 46 | 849 |
| District of Columbia | 0 | 0 | 0 | North Dakota | 120 | 0 | 3 |
| Florida | 272 | 8 | 178 | Ohio | 64 | 16 | 455 |
| Georgia | 97 | 0 | 135 | Oklahoma | 326 | 17 | 504 |
| Hawaii | 7 | 0 | 0 | Oregon | 7 | 0 | 0 |
| Idaho | 20 | 0 | 0 | Pennsylvania | 67 | 65 | 563 |
| Illinois | 120 | 17 | 373 | Rhode Island | 4 | 0 | 20 |
| Indiana | 40 | 1 | 55 | South Carolina | 47 | 15 | 518 |
| Iowa | 194 | 6 | 174 | South Dakota | 180 | 0 | 10 |
| Kansas | 203 | 5 | 76 | Tennessee | 61 | 1 | 60 |
| Kentucky | 45 | 0 | 62 | Texas | 704 | 30 | 636 |
| Louisiana | 168 | 5 | 181 | Utah | 12 | 0 | 0 |
| Maine | 3 | 0 | 0 | Vermont | 3 | 0 | 0 |
| Maryland | 8 | 1 | 18 | Virginia | 26 | 0 | 21 |
| Massachusetts | 9 | 0 | 0 | Washington | 12 | 0 | 0 |
| Michigan | 99 | 3 | 45 | West Virginia | 5 | 1 | 1 |
| Minnesota | 105 | 1 | 84 | Wisconsin | 111 | 16 | 344 |
| Mississippi | 111 | 19 | 207 | Wyoming | 56 | 0 | 8 |
| Missouri | 169 | 9 | 181 | Puerto Rico | 0 | 0 | 0 |
| | | | | Countrywide Totals | 4,332* | 329 | 6,449 |

*Corrected for boundary-crossing tornadoes.

Source: National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce.

## Motor Vehicle Accidents

The number of traffic fatalities in the United States rose by 5 percent in 1986 after a drop of more than 1 percent in 1985. The increase reversed an overall downward trend in highway deaths, which had declined by 3 percent per year, on average, from 1980 through 1985.

Data compiled by the Insurance Information Institute also reflect increases in accidents (2.5 percent) and injuries (5 percent) in 1986. The rise in the number of accidents was attributed in part to an increase of almost 5 percent in vehicle miles traveled and an increase in average driving speeds. A Federal Highway Administration study showed that in fiscal 1986, 58.8 percent of drivers exceeded the 55-mile-per-hour speed limit and 10.6 percent exceeded 65 miles per hour.

Credited with contributing to the overall improvement in the fatality record during the 1980s was the increasing use of seat belts. Their use in mid-1987 was mandated in 26 states and the District of Columbia, with seat belt laws scheduled to become effective in Montana on Oct. 1 and in Virginia on January 1, 1988 (see table, page 76).

The economic cost of motor vehicle accidents continued to rise in 1986 because of steady increases in the costs of caring for victims, repairing damage and providing other related services. The $80 billion figure in 1986—up from $76 billion in 1985—was equivalent to a total of about $330 for every person in the United States.

The economic loss includes property damage, medical costs, lost productivity, the costs of emergency services, legal and court costs and public assistance programs, and insurance administration expenses.

### Motor Vehicle Accidents, 1986

| | |
|---|---|
| Accidents* | 33,300,000 |
| Deaths** | 47,900 |
| Injuries* | 5,300,000 |
| Economic Loss*** | $80,000,000,000 |

*Insurance Information Institute estimates.
**National Safety Council.
***Insurance Information Institute estimate based on information from the National Center for Health Statistics, National Health Survey.

### Traffic Deaths, 1977-1986

| Year | Deaths | Annual % Change | Death Rate per 100 Million Vehicle Miles | Ratio of Deaths to Motor Vehicle Registrations | Death Rate per 10,000 Motor Vehicles |
|---|---|---|---|---|---|
| 1977 | 49,510 | | 3.35 | 1 to 3,007 | 3.33 |
| 1978 | 52,411 | + 5.9 | 3.39 | 1 to 2,931 | 3.41 |
| 1979 | 53,524 | + 2.1 | 3.50 | 1 to 2,937 | 3.35 |
| 1980 | 53,172 | − 0.7 | 3.50 | 1 to 3,039 | 3.29 |
| 1981 | 51,385 | − 3.4 | 3.30 | 1 to 3,197 | 3.13 |
| 1982 | 45,779 | −10.9 | 2.88 | 1 to 3,611 | 2.77 |
| 1983 | 44,452 | − 2.9 | 2.69 | 1 to 3,777 | 2.62 |
| 1984 | 46,263 | + 4.1 | 2.69 | 1 to 3,668 | 2.69 |
| 1985 | 45,600 | − 1.4 | 2.57 | 1 to 3,853 | 2.57 |
| 1986 | 47,900 | + 5.0 | 2.57 | 1 to 3,805 | 2.63 |

Source: National Safety Council (ratio of deaths to registrations compiled by Insurance Information Institute)

## Status of Auto Seat Belt Legislation as of July 1, 1987

| State | Date Legislation Effective | Violation May Mitigate Damages | Primary[1] Enforcement | Additional Information |
|---|---|---|---|---|
| Alabama | | | | |
| Alaska | | | | |
| Arizona | | | | |
| Arkansas | | | | |
| California | 1/1/86[2] | | | |
| Colorado | 7/1/87 | | | |
| Connecticut | 1/1/86 | | | |
| Delaware | | | | |
| Dist. of Columbia | 12/12/85 | | | |
| Florida | 7/1/86 | | | |
| Georgia | | | | |
| Hawaii | 12/16/85 | | X | |
| Idaho | 7/1/86 | | | |
| Illinois | 7/1/85 | | X | |
| Indiana | 7/1/87 | | | |
| Iowa | 6/1/86 | X | X | |
| Kansas | 7/1/86 | | | |
| Kentucky | | | | |
| Louisiana | 7/1/86 | X | | |
| Maine | | | | |
| Maryland | 7/1/86 | | | |
| Massachusetts | | | | Law repealed Nov. 1986 |
| Michigan | 7/1/85 | X | | Damage mitigation up to 5% maximum |
| Minnesota | 8/1/86 | | X | No fines |
| Mississippi | | | | |
| Missouri | 9/28/85 | X | | |
| Montana | 10/1/87 | | | |
| Nebraska | | | | Law repealed Nov. 1986 |
| Nevada | 7/1/87 | | | $25 fine for violations |
| New Hampshire | | | | |
| New Jersey | 3/1/85 | | | |
| New Mexico | 1/1/86 | | X | |
| New York | 12/1/84 | X | X | Maximum fine $50 |
| North Carolina | 10/1/85 | | X | |
| North Dakota | | | | |
| Ohio | 5/6/86 | | | |
| Oklahoma | 2/1/87 | | | |
| Oregon | | | | |
| Pennsylvania | | | | |
| Rhode Island | | | | |
| South Carolina | | | | |
| South Dakota | | | | |
| Tennessee | 4/21/86 | | | Warning citations for 1st violations |
| Texas | 9/1/85 | | X | |
| Utah | 4/27/86 | | | |
| Vermont | | | | |
| Virginia | 1/1/88 | | | |
| Washington | 6/11/86 | | | |
| West Virginia | | | | |
| Wisconsin | | | | |
| Wyoming | | | | |

1 Primary enforcement means police may stop a vehicle and issue a citation for non-compliance with seat belt law. In other states, laws provide for secondary enforcement, which means police may issue a citation only if the vehicle has been stopped for another traffic violation.
2 Drivers, front and back passengers. Law requires manufacturers to install passive restraints in new cars sold in California after Sept. 1, 1989.

Source: Insurance Information Institute

## Sex of Drivers

Males comprised about 52 percent — some 82.5 million — of the nation's estimated 158.6 million drivers in 1986. While males were involved as drivers in almost twice as many accidents as were females, the National Safety Council attributes the difference at least partly to the amount of driving done by members of each sex and to differences in the times, places and circumstances that the driving is done.

On the basis of the number of miles driven, the accident rate of female drivers dropped significantly in 1986, while the accident rate of their male counterparts rose to the highest level since 1982. In 1985, for the first time, the accident rate of female drivers had been higher than that of males. In recent years, the males' accident rate—the number of drivers in accidents per 10 million miles driven—had been decreasing gradually while the accident rate of female drivers has been fluctuating.

Male drivers continued in 1986 to compile a much worse fatal accident record than their female counterparts. The National Safety Council data showed that males were involved as drivers in almost four times as many fatal accidents as females and that the involvement rate of male drivers was more than double that of female drivers.

### Sex of Drivers Involved in Accidents, 1977-1986

| | Drivers in All Accidents | | | | Drivers in Fatal Accidents | | | |
|---|---|---|---|---|---|---|---|---|
| | Male | | Female | | Male | | Female | |
| Year | Number | Rate* | Number | Rate* | Number | Rate** | Number | Rate** |
| 1977 | 20,600,000 | 209 | 9,300,000 | 193 | 51,900 | 53 | 11,800 | 25 |
| 1978 | 21,700,000 | 209 | 9,800,000 | 192 | 51,500 | 50 | 15,500 | 30 |
| 1979 | 20,600,000 | 202 | 9,100,000 | 180 | 52,700 | 52 | 12,500 | 25 |
| 1980 | 20,100,000 | 200 | 9,700,000 | 192 | 56,100 | 56 | 12,200 | 24 |
| 1981 | 20,500,000 | 200 | 9,500,000 | 183 | 53,200 | 52 | 11,800 | 23 |
| 1982 | 20,600,000 | 198 | 9,900,000 | 186 | 48,800 | 47 | 11,500 | 22 |
| 1983 | 20,400,000 | 187 | 10,300,000 | 184 | 46,300 | 43 | 11,700 | 21 |
| 1984 | 21,800,000 | 192 | 11,200,000 | 190 | 47,600 | 42 | 13,300 | 23 |
| 1985 | 21,400,000 | 185 | 11,600,000 | 191 | 46,700 | 40 | 12,700 | 21 |
| 1986 | 22,100,000 | 196 | 12,900,000 | 177 | 46,400 | 41 | 13,100 | 18 |

*Number of drivers in all accidents per 10,000,000 miles driven.
**Number of drivers in fatal accidents per 1,000,000,000 miles driven.

Source: National Safety Council estimates

## Types and Locations of Auto Accidents

Although some seven out of 10 of the nation's automobile accidents occur in urban locations, nearly two-thirds of the resulting fatalities occur in rural areas. National Safety Council compilations show that in 1986 rural accidents accounted for more than 63 percent of all highway fatalities but only 38 percent of non-fatal injuries.

The urban-rural proportions vary considerably for specific types of accidents, however. In 1986, for example, about 73 percent of all

pedestrian fatalities occurred in urban areas, while rural accidents accounted for almost nine of every 10 fatal noncollision accidents and nearly seven out of 10 fatal collisions involving two or more motor vehicles. (See table below.)

### Motor Vehicle Accidents by Type and Location, 1986

| Type of Accident | Fatal Accidents | | | All Accidents | | |
|---|---|---|---|---|---|---|
| | Total | Urban | Rural | Total | Urban | Rural |
| Pedestrian | 8,100 | 5,900 | 2,200 | 100,000 | 90,000 | 20,000 |
| Two-Vehicle Collision | 16,400 | 5,500 | 10,900 | 14,240,000 | 11,460,000 | 2,780,000 |
| Angle Collision | 6,300 | 2,400 | 3,900 | 4,500,000 | 3,740,000 | 760,000 |
| Head-on Collision | 4,200 | 1,000 | 3,200 | 440,000 | 310,000 | 130,000 |
| Rear-End Collision | 1,900 | 600 | 1,300 | 4,110,000 | 3,280,000 | 830,000 |
| Other Two-Vehicle Collision | 4,000 | 1,500 | 2,500 | 5,190,000 | 4,130,000 | 1,060,000 |
| Other Collision Total | 4,600 | 2,400 | 2,200 | 950,000 | 740,000 | 210,000 |
| Noncollision | 13,200 | 1,600 | 11,600 | 2,410,000 | 520,000 | 1,890,000 |
| Totals | 42,300 | 15,400 | 26,900 | 17,700,000 | 12,800,000 | 4,900,000 |

Source: National Safety Council

## Claim Costs, Auto Accidents

The costs of insurance claim settlements and court awards resulting from auto accidents have risen steadily in recent years. From 1977 through 1986, the average paid bodily injury claim rose 155.9 percent from $2,890 to $7,396; the average paid property damage liability claim climbed approximately 138.6 percent from $544 to $1,298.

### Countrywide Average Paid Claim Costs* Liability Insurance, Private Passenger Cars

| Year | Bodily Injury | Property Damage | Year | Bodily Injury | Property Damage |
|---|---|---|---|---|---|
| **1977** | $2,890 | $544 | **1982** | $5,041 | $ 958 |
| **1978** | 3,123 | 622 | **1983** | 5,699 | 1,020 |
| **1979** | 3,559 | 715 | **1984** | 6,163 | 1,125 |
| **1980** | 4,010 | 787 | **1985** | 6,815 | 1,217 |
| **1981** | 4,453 | 889 | **1986** | 7,396 | 1,298 |

*For all limits combined and including all loss adjustment expenses. For bodily injury liability, dollar averages exclude Massachusetts (for all years) and most states which have no-fault automobile insurance laws. For property damage liability, dollar averages exclude Massachusetts, Michigan and South Carolina.

Source: Insurance Services Office

Insurers, grass-root citizen groups and government at all levels continued in 1987 to step up the battle against drunk driving, which is blamed for some 22,000 traffic deaths each year.

By midyear, all but one state—Wyoming—had put into motion laws barring the consumption of alcoholic beverages by persons under 21 (in a few states the laws do not apply to persons under 21 who had already reached the previous legal drinking age). Three states have lower drinking ages for beer, and thus fall short of full compliance with federal law which calls for the withholding of federal highway funds from states which fail to adopt a minimum drinking age of 21 for all alcoholic beverages by a cutoff date—Oct. 1, 1986—which has already passed.

Some form of DWI (driving while intoxicated) countermeasure legislation has been introduced in a majority of states. In addition to raising the legal drinking age, the bills include such measures as increasing penalties for drunk driving; authorizing administrative suspensions of driver licenses (on-the-spot confiscation if the driver's blood alcohol content exceeds a stipulated level), and the banning of "happy hours."

Many states and local police departments have initiated sobriety-check roadblock programs in an effort to curb drunk drivers. In 1986, the U.S. Supreme Court affirmed without comment a Virginia Supreme Court ruling permitting the use of such roadblocks.

A summary of measures taken by the states to curb drunk driving is contained in the table on the following pages.

It has been estimated that the elimination of even 10 percent of drunk drivers from the highways would result in annual savings of 2,500 lives, 70,000 injuries and more than $1 billion in insurance claims.

That the campaign is having some effect is suggested by information from the National Highway Traffic Safety Administration's Fatal Accident Reporting System showing that the estimated proportion of all people killed in crashes in which at least one driver or pedestrian was legally drunk declined from 46 percent in 1982 to 43 percent in 1984 and to 41 percent in 1985. In addition, the percentage of drunken motorists among all fatalities involving drivers dropped from 46 percent in 1980 to 38 percent in 1985.

Insurers have been strong supporters of anti-drunk driving measures, and many auto insurance companies offer discounts and rebates to policyholders who sign agreements not to drink and drive. The plans vary by company, and features range from immediate discounts to rebates after accident-free periods.

## Measures by the States to Curb Drunk Driving*

| State | Drinking Age | 1st Offense License Suspension | Blood Alcohol Concentration (BAC) Defining Driving While Intoxicated | Laws or Court Cases Holding Alcoholic Bev. Servers Liable | |
|---|---|---|---|---|---|
| | | | | Statute | Court |
| Alabama | 21[1] | 90 days | 0.10 | yes | yes |
| Alaska | 21 | 90 days | 0.10 | yes | yes |
| Arizona | 21[1] | 90 days | 0.10 | yes | yes |
| Arkansas | 21 | 90 days | 0.10 | | |
| California | 21 | 6 mos. | 0.10 | yes | |
| Colorado | 21; 18, 3.2 beer | 1 yr. (.15 BAC) | 0.15[4] | yes | yes |
| Connecticut | 21 | 1 yr. | 0.10 | yes | |
| Delaware | 21 | 3 mos. | 0.10[4] | | |
| District of Columbia | 21[1] | 6 mos. (rev.) | 0.10[4] | | |
| Florida | 21 | 6 mos. | 0.10 | yes | yes |
| Georgia | 21[1] | 1 yr. | 0.10[4] | yes | yes |
| Hawaii | 21 | 90 days | 0.10 | | yes |
| Idaho | 21[1] | 6 mos. | 0.10[4] | yes | yes |
| Illinois | 21 | 1 yr. min. | 0.10 | yes | |
| Indiana | 21 | 60 days-1 yr. | 0.10 | | yes |
| Iowa | 21 | 180 days | 0.10 | yes | |
| Kansas | 21 | Limited use, 90 days | 0.10 | | |
| Kentucky | 21 | 30 days-6 mos. | 0.10 | | yes |
| Louisiana | 21[1,2] | 60 days | 0.10 | | yes |
| Maine | 21 | 1 yr. | 0.10 (.02 under 21) | yes | |
| Maryland | 21 | 60 days max. | 0.13 | | |
| Massachusetts | 21 | 45–90 days | 0.10 | | yes |
| Michigan | 21 | 6 mos.-2 yrs. | 0.10 | yes | |
| Minnesota | 21 | 30 days | 0.10 | yes | |
| Mississippi | 21 | 90 days-1 yr. | 0.10 | | yes |
| Missouri | 21 | 30 days | 0.15[4] | | yes |
| Montana | 21[1] | 6 mos. | 0.10 | yes | yes |
| Nebraska | 21 | 6 mos. | 0.10 | | |
| Nevada | 21 | 1 yr. (rev.) | 0.10 | | |
| New Hampshire | 21 | 90 days-2 yrs. | 0.10 | | |
| New Jersey | 21 | 6 mos. | 0.10 | | yes |
| New Mexico | 21 | 6 mos. | 0.10 (.05 under 18) | yes | yes |
| New York | 21 | 6 mos. | 0.10 | yes | |
| North Carolina | 21 | 1 yr. | 0.10 | yes | yes |
| North Dakota | 21 | 91 days | 0.10 | yes | |
| Ohio | 21; 19, beer | 60 days | 0.10 | yes | |
| Oklahoma | 21 | 2-6 mos. | 0.05-0.10 | | |
| Oregon | 21 | 1 yr. | 0.08 | yes | yes |
| Pennsylvania | 21 | 1 yr. | 0.10 | yes | yes |
| Rhode Island | 21 | 3-6 mos. | 0.10 | yes | |
| South Carolina | 21 | 6 mos. | 0.10 | | |
| South Dakota | 21; 19, 3.2 beer | 30 days | 0.10 | | |
| Tennessee | 21[1] | 1 yr. | 0.10 | | |
| Texas | 21 | 90 days-1 yr. | 0.10[4] | | yes |
| Utah | 21 | 90 days | 0.08[4] | yes | |
| Vermont | 21 | 3 mos.-1 yr. | 0.10 | yes | |
| Virginia | 21[1] | 6 mos. | 0.10 | | |
| Washington | 21 | 90 days | 0.10 | | yes |
| West Virginia | 21[3] | 6 mos. | 0.10 | | |
| Wisconsin | 21 | 6 mos. | 0.10 | | yes |
| Wyoming | 19 | 90 days | 0.10 | yes | yes |

*All data are as of June 1, 1987.

[1]"Grandfather clause"—Persons under 21 reaching previous legal drinking age before a certain date retain their drinking age status; [2]18-20-year-olds permitted to drink in private homes or clubs when accompanied by a parent, spouse or guardian age 21 or older, or for medical or religious reasons.

Source: Insurance Information Institute

| Special Measures | State |
|---|---|
| Mandatory school for convicted DWIs | Alabama |
| Ban on "happy hours"; some local REDDI[5] lines | Alaska |
| | Arizona |
| Governor's advisory council | Arkansas |
| Toll-free number to report DWI suspects; open container law | California |
| Administrative license revocation; REDDI[5] line; first offense 48 hrs. jail or public service | Colorado |
| 48 hours in jail or public service for first offense | Connecticut |
| | Delaware |
| Alcohol awareness rehabilitation courses for first offenders | District of Columbia |
| Statewide rehabilitation program | Florida |
| Required high school courses on drinking and driving; DWI grand jury | Georgia |
| Mandatory education; roadblocks; alcohol to minors by parents only | Hawaii |
| Mandatory treatment for DWIs; REDDI[5] hot line | Idaho |
| | Illinois |
| | Indiana |
| Toll-free hot line; CB radio watch | Iowa |
| REDDI[5] hot line | Kansas |
| 30-day suspension with education program, six months without; under 18 lose license 6 months or until 18 | Kentucky |
| Mandatory education and community service; "hardship" law | Louisiana |
| License revocation for BAC of .02 or higher for drivers under 21 | Maine |
| | Maryland |
| Ban on "happy hours"; 14 days jail for 2d offense; 1-15 yrs. for vehic. homicide | Massachusetts |
| | Michigan |
| Administrative suspension at BAC .10 | Minnesota |
| Rehabilitation program with incentives (reduced suspension) | Mississippi |
| Administrative revocation at .13, plus 60-day restricted use; REDDI[5] line | Missouri |
| Fine, jail for first offender DWIs; increased penalties for subsequent offenses | Montana |
| Trooper incentive program; REDDI[5] line | Nebraska |
| 2 days jail or public service; 3d DWI in 7 years a felony; no DWI plea bargaining; REDDI[5] line | Nevada |
| | New Hampshire |
| $1,000 surcharge for convicted DWIs | New Jersey |
| Administrative license suspension pending hearing | New Mexico |
| "Stop DWI" education program; aggravated unlicensed operation an offense; 1 year rev. under 21 | New York |
| Color coding on driver licenses to better enforce drinking age | North Carolina |
| | North Dakota |
| Educational program for first offenders; REDDI[5] program | Ohio |
| Governor's task force | Oklahoma |
| CB reporting system; REDDI[5] program | Oregon |
| | Pennsylvania |
| Toll-free hot line; community service | Rhode Island |
| Open container law | South Carolina |
| | South Dakota |
| Mandatory education requirement | Tennessee |
| Mandatory education program for the first offense; hot line | Texas |
| Jail or community service for first offense | Utah |
| | Vermont |
| Jail term up to 1 year; alcohol safety action program; court-ordered DWI program | Virginia |
| Sophisticated testing procedures; toll-free hot line, CB reporting system, task force | Washington |
| Administrative license suspension | West Virginia |
| | Wisconsin |
| REDDI[5] hot line | Wyoming |

[1]Except for "non-intoxicating" beer; [4]per se definition (state has lower "presumed intoxicated" BAC number); [5]REDDI is an acronym for Report Every Drunk Driver Immediately.

## Accidental Deaths

Accidents in the United States in 1986 took approximately 94,000 lives. The toll was 1,500 greater than the 1985 total.

National Safety Council data showed reductions in accidental deaths in homes and in the workplace.

### Accidental Deaths, 1985-1986

| | 1986 | 1985 | % Change |
|---|---|---|---|
| All Accidents | 94,000 | 92,500 | +2% |
| Motor Vehicle | 47,900 | 45,600 | +5 |
| Home | 20,500 | 21,000 | −2 |
| Work | 10,700 | 11,400 | −6 |
| Public (non-motor vehicle) | 19,000 | 19,000 | 0 |

NOTE: Death figures shown for the four separate classifications total more than the "All Accidents" figure due to rounding and because some deaths are included in more than one classification.

Source: National Safety Council

## Deaths in Home Accidents

Falls and fires, the first and second leading causes of accidental deaths in the home, accounted for approximately half of such fatalities in 1986, according to National Safety Council estimates. The number of deaths attributed to home accidents has been declining for many years.

### Numbers and Types of Home Accident Deaths, 1977-1986

| | | | Suffocation: | | Poisoning by: | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Falls | Fires, Burns* | Ingested Object | Other | Solids, Liquids | Gases, Vapors | Firearms | Other | Total |
| 1977 | 7,400 | 5,000 | 1,800 | 800 | 2,700 | 1,000 | 1,100 | 3,400 | 23,200 |
| 1978 | 7,400 | 5,100 | 1,800 | 800 | 2,400 | 1,100 | 1,000 | 3,200 | 22,800 |
| 1979 | 7,100 | 4,900 | 2,000 | 500 | 2,500 | 900 | 1,100 | 3,500 | 22,500 |
| 1980 | 7,100 | 4,800 | 2,000 | 500 | 2,500 | 700 | 1,100 | 4,100** | 22,800 |
| 1981 | 6,800 | 4,700 | 2,000 | 500 | 2,600 | 800 | 1,000 | 3,300 | 21,700 |
| 1982 | 6,500 | 4,300 | 2,100 | 600 | 2,700 | 800 | 1,000 | 3,200 | 21,200 |
| 1983 | 6,500 | 4,100 | 2,200 | 600 | 2,700 | 800 | 900 | 3,400 | 21,200 |
| 1984 | 6,400 | 4,100 | 2,300 | 600 | 3,000 | 700 | 900 | 3,200 | 21,200 |
| 1985 | 6,100 | 4,000 | 2,400 | 500 | 2,800 | 600 | 1,000 | 3,600 | 21,000 |
| 1986 | 5,700 | 3,900 | 2,400 | 500 | 3,200 | 500 | 900 | 3,400 | 20,500 |

*Includes deaths resulting from conflagrations, regardless of nature of injury.

**Includes about 1,000 excessive heat deaths due to summer heat wave.

Source: National Safety Council estimates.

## Accidents by Age of Drivers

Compilations based on reports from state traffic authorities show that drivers under age 25 are involved in a disproportionately high number of traffic accidents. According to the National Safety Council, drivers in that age group made up 19.7 percent of the motoring population of the United States in 1986, but comprised 33.6 percent of the drivers involved in all accidents and 32.9 percent of drivers in fatal accidents. Drivers in the 20-24 age bracket had the worst fatal accident rate in 1986—67 per 100,000 drivers. Drivers in the 20-24 group also had the highest overall accident rate — 37 per 100 drivers.

### Accidents by Age of Drivers, 1986

| Age Group | Number of Drivers | % of Total | Drivers in All Accidents | % of Total | Drivers in Fatal Accidents | % of Total | Driver Involvement Rate All* | Driver Involvement Rate Fatal** |
|---|---|---|---|---|---|---|---|---|
| Under 20 | 14,000,000 | 8.8% | 5,100,000 | 14.6% | 8,500 | 14.3% | 36 | 61 |
| 20-24 | 17,200,000 | 10.9 | 6,400,000 | 18.3 | 11,500 | 19.3 | 37 | 67 |
| 25-34 | 38,800,000 | 24.4 | 9,800,000 | 28.0 | 16,900 | 28.4 | 25 | 44 |
| 35-44 | 31,700,000 | 20.0 | 5,700,000 | 16.3 | 8,900 | 15.0 | 18 | 28 |
| 45-54 | 22,800,000 | 14.4 | 3,100,000 | 8.9 | 4,900 | 8.2 | 14 | 21 |
| 55-64 | 18,500,000 | 11.7 | 2,400,000 | 6.8 | 3,900 | 6.6 | 13 | 21 |
| 65-74 | 12,100,000 | 7.6 | 1,700,000 | 4.8 | 3,000 | 5.0 | 14 | 25 |
| 75 and over | 3,500,000 | 2.2 | 800,000 | 2.3 | 1,900 | 3.3 | 23 | 54 |
| Totals | 158,600,000 | 100.0 | 35,000,000 | 100.0 | 59,500 | 100.0 | 22 | 88 |

*Drivers in all accidents per 100 drivers in each age group.
**Drivers in fatal accidents per 100,000 drivers in each age group.

Source: National Safety Council.

## Automobile Repair Costs

While the cost of the labor involved in repairing damaged automobiles continues to rise, the average cost of some replacement parts is on the decline, due in part to competition from independent parts manufacturers whose products often are less expensive than those made by manufacturers of the original equipment. Nevertheless, a 1987 study by the Alliance of American Insurers showed that the money it would cost to rebuild completely a demolished Plymouth Voyager mini van would be nearly enough to buy three new ones.

The Alliance said that while the factory sticker price was $12,766, the cost to rebuild the vehicle using parts made by the original equipment manufacturer would be $33,391.93, or 2.6 times the original cost. The study included parts and paint, but not the cost of labor. The car selected for the study was equipped with various popular options.

Rising insurance costs reflect the fact that coverages which pay for vehicular damage typically account for about two-thirds of the total cost of an insurance policy on a late-model car.

The table below reflects only a small change over a five-year period in the cost of replacing frequently damaged parts of the same model 1982 car.

### Cost of Replacing Selected Parts, 1982 and 1987*

| | 1982 Oldsmobile Cutlass Supreme 2-door sedan damaged in: | | | |
|---|---|---|---|---|
| | April 1982 | | April 1987 | |
| | Parts | Labor** | Parts | Labor*** |
| Front Bumper Assembly | $ 936.91 | $ 49.62 | $ 745.11 | $ 79.45 |
| Grille and Headlight Assemblies | 449.81 | 54.93 | 516.67 | 97.61 |
| Hood Assembly | 399.04 | 44.30 | 437.44 | 59.02 |
| Front Fender Assembly (one side) | 347.10 | 65.56 | 318.35 | 93.07 |
| | $2,132.86 | $214.41 | $2,017.57 | $329.15 |
| Total, Parts and Labor | | $2,347.27 | | $2,346.72 |

*Data do not include costs of materials and labor for painting exterior body panels.
**At $17.72 an hour.
***At $22.70 an hour.
Sources: Parts costs: Insurance Institute for Highway Safety, Motor Crash Estimating Guides, April 1982 and April 1987; labor costs: Allstate Insurance Company.

## Low-Speed Crash Tests

Crash tests of 1987 four-door midsize automobiles again demonstrated the costliness of driving a car into a stationary object at a speed as low as 5 miles per hour.

The results of the bumper performance crash tests, conducted by the Insurance Institute for Highway Safety (IIHS), were similar to those of tests a year earlier of small vehicles. In the 1987 tests, each of 22 midsize cars sustained some damage in at least two out of four impacts, with the total per-car damage ranging from $427 to $2,030.

The four tests, all conducted at 5 mph, involved crashing the cars' front and rear ends into a flat barrier, front ends into an angle barrier, and rear ends into a pole.

IIHS said only six of the 22 cars escaped undamaged in the simplest tests, the front- and rear-into-barrier impacts, while four other models sustained only minor damage in those tests. As recently as the 1982 model year, all cars were required by federal standards to withstand 5 mph front- and rear-into-barrier tests without any damage. However, that rule was weakened by the National Highway Traffic Safety Administration to a 2.5 mph impact test requirement starting with the 1983 model year.

Significantly, the car which experienced by far the least damage was the Chevrolet Corsica, designated as a 1988 model and designed, according to IIHS President Brian O'Neill, "with consideration toward preventing low-speed crash damage." The total damage to the Corsica in the four tests was $427, compared with $866 for the second-best

Toyota Camry and $2,030 for the Honda Accord DX, which fared the worst. Except for the Corsica, all the cars tested were 1987 models.

Chevrolet's Celebrity and Dodge's 600 sustained the most extensive damage in the two barrier tests, with totals of $615 and $593, respectively.

All 22 cars sustained damage in the front-into-angle barrier test, with the most extensive damage experienced by the Chevrolet Cavalier, $976. Seven other cars also sustained more than $800 in damage in the same test: the Dodge 600, Buick Century, Pontiac Grand Am, Oldsmobile Ciera, Honda Accord DX, Pontiac 6000 and Nissan Stanza E. Three models, including the Corsica, received less than $300 damage in the front-into-angle test.

All 22 cars also were damaged to some extent in the rear-into-pole impact, with the damage to six of the cars exceeding $1,000 each: the Ford Taurus GL, Chrysler LeBaron, Honda Accord DX, Mercury Sable GS, Pontiac 6000 and Buick Skyhawk. Damage to the Corsica and the Buick Skylark was estimated at less than $250 each in the same test.

IIHS observed that there was little or no correlation between the base prices of the 22 cars tested and the performance of their bumper systems. The Washington-based Institute noted that the Corsica is among the least expensive of the cars tested, while the Honda Accord DX is among the most expensive.

## Damage Repair Costs* in 5 MPH Crash Tests of 1987 Model Midsize 4-Door Cars

| Make and Model | Front into Barrier | Rear into Barrier | Front into Angle Barrier | Rear into Pole | Total Damage in All Tests |
|---|---|---|---|---|---|
| Chevrolet Corsica** | $ 40 | $ 0 | $204 | $ 183 | $ 427 |
| Toyota Camry | 67 | 0 | 274 | 525 | 866 |
| Buick Skylark | 0 | 0 | 795 | 229 | 1,024 |
| Oldsmobile Firenza | 0 | 0 | 351 | 774 | 1,125 |
| Pontiac Sunbird | 0 | 13 | 491 | 739 | 1,243 |
| Ford Tempo GI | 221 | 12 | 665 | 361 | 1,259 |
| Nissan Stanza E | 0 | 53 | 817 | 509 | 1,379 |
| Oldsmobile Calais | 216 | 35 | 733 | 397 | 1,381 |
| Chrysler LeBaron GTS | 199 | 113 | 765 | 453 | 1,530 |
| Mercury Sable GS | 0 | 0 | 459 | 1,112 | 1,571 |
| Plymouth Reliant LE | 127 | 284 | 488 | 718 | 1,617 |
| Chevrolet Celebrity | 350 | 265 | 639 | 365 | 1,619 |
| Chevrolet Cavalier | 25 | 248 | 976 | 406 | 1,655 |
| Oldsmobile Ciera | 0 | 0 | 836 | 868 | 1,704 |
| Buick Skyhawk | 124 | 0 | 569 | 1,017 | 1,710 |
| Pontiac Grand Am | 79 | 120 | 847 | 703 | 1,749 |
| Chrysler LeBaron | 208 | 211 | 247 | 1,206 | 1,872 |
| Dodge 600 | 261 | 332 | 888 | 403 | 1,884 |
| Ford Taurus GL | 0 | 0 | 527 | 1,418 | 1,945 |
| Buick Century | 204 | 73 | 859 | 860 | 1,996 |
| Pontiac 6000 | 55 | 88 | 822 | 1,039 | 2,004 |
| Honda Accord DX | 0 | 0 | 830 | 1,200 | 2,030 |

*Repair costs are rounded to the nearest dollar. Estimates were prepared in February 1987, using a labor rate of $25 per hour.
**The Chevrolet Corsica is a 1988 model.

Source: Insurance Institute for Highway Safety

## Auto Collision Insurance Claims

Following a familiar pattern, sports and specialty cars dominated the list of 1986 model passenger vehicles with the worst insurance collision coverage loss experience, according to the Highway Loss Data Institute (HLDI). The Washington-based institute said that of the 15 models with the poorest collision records, 11 were sports or specialty cars and the rest were small two-door models.

HLDI noted that most of the vehicles with the worst collision coverage results were imported models.

By contrast, large domestic models dominated the list of vehicles with the best overall collision coverage results. Ten of the 15 1986 models with the best results were domestic passenger vans or station wagons, and only one small car, the Ford Escort station wagon, appeared on the list.

The findings grew out of a study of the frequencies and sizes of collision coverage claims for damage to 1984, 1985 and 1986 model cars. The supporting data were provided by 13 insurance companies.

HLDI noted that claim frequencies, average loss payments per claim and average loss payments per insured vehicle year generally decrease with increasing vehicle size in all body style groups.

Of the 1986 cars, the Chevrolet Astro Van was shown to have the best overall record with a result 56 percent better than the average for all cars. Four other models also had results less than half the 1986 all-passenger car result.

The Chevrolet Corvette had the worst result with a value more than triple the all-car result. Two other vehicles had results more than twice the average.

The table on the next page lists the 1986 cars with the best and worst collision coverage loss experience based on average loss payments per insured vehicle year, which combines claim frequency and average loss payment per claim. The accompanying chart compares the collision loss experience of the 1986 models by car size and body style group.

The table below compares the collision loss experience of 1986 model cars during their first year of availability, 1985 models during their first two years and 1984 models during their first three years.

### Insurance Losses, Collision Coverages, in Years since Introduction, 1984, 1985 and 1986 Models, Passenger Cars

| Model Year | Years Since Introduction | Claim Frequency per 100 Insured Vehicle Years | Average Loss Payment per Claim | Average Loss Payment per Insured Vehicle Year |
|---|---|---|---|---|
| 1986 | 1st | 10.8 | $1,771 | $191 |
| 1985 | 2nd | 10.5 | 1,666 | 176 |
| 1984 | 3rd | 10.1 | 1,573 | 158 |

Source: Highway Loss Data Institute

## Relative Average Loss Payments per Insured Vehicle Year for 1986 Model Year Passenger Cars with the Best and the Worst Collision Coverage Results

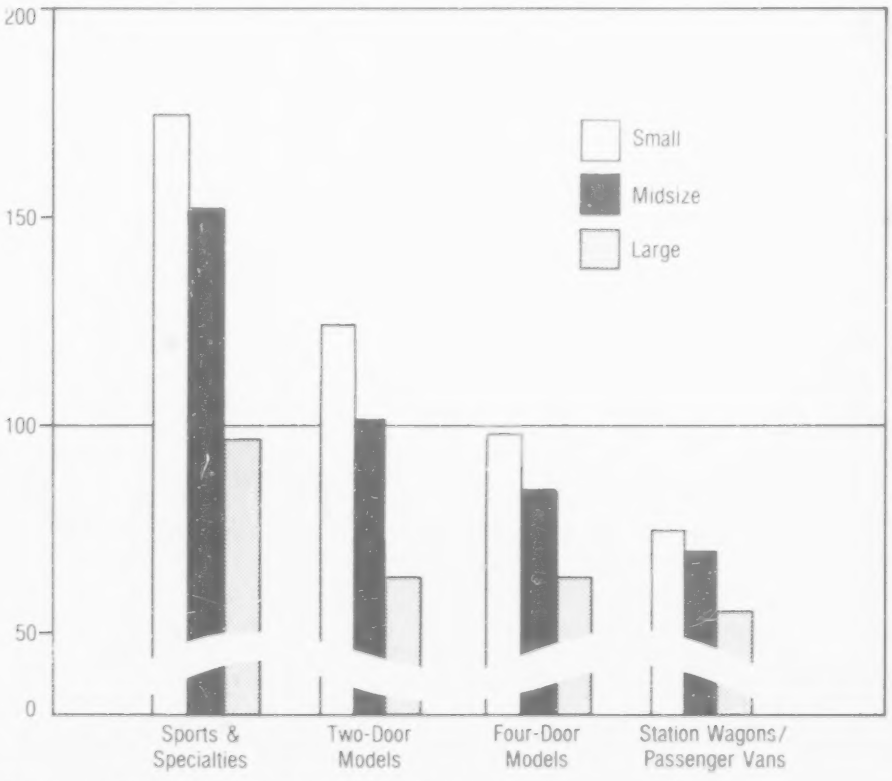
| Best Results | | | | Worst Results | | | |
|---|---|---|---|---|---|---|---|
| Make & Series | Body Style* | Car Size | RALP** | Make & Series | Body Style* | Car Size | RALP** |
| Chevrolet Astro Van | P.V. | L | 44 | Chevrolet Corvette | Sp. | S | 305 |
| GMC Safari Van | P.V. | L | 46 | Porsche 944 Coupe | Sp. | S | 271 |
| Ford LTD | S.W. | M | 46 | BMW 500 Series | Sp. | M | 228 |
| Pontiac Parisienne | S.W. | L | 47 | Subaru XT Coupe | 2-Dr. | S | 197 |
| Dodge Caravan | P.V. | L | 48 | Mazda RX-7 | Sp. | S | 189 |
| Ford Crown Victoria | 4-Dr. | L | 52 | Pontiac Firebird | Sp. | M | 187 |
| Mercury Grand Marquis | 4-Dr. | L | 54 | Nissan 300ZX 2 + 2 | Sp. | S | 182 |
| Dodge Diplomat | 4-Dr. | L | 54 | Toyota Celica Supra | Sp. | M | 177 |
| Plymouth Voyager | P.V. | L | 56 | BMW 325e 2D | Sp. | M | 177 |
| Ford Taurus | S.W. | M | 57 | Nissan 300 ZX | Sp. | S | 176 |
| Pontiac Parisienne | 4-Dr. | L | 57 | Chevrolet Camaro | Sp. | M | 175 |
| Chevrolet Celebrity | S.W. | M | 59 | Ford EXP | Sp. | S | 174 |
| Chevrolet Caprice | 4-Dr. | L | 59 | Volkswagen GTI | 2-Dr. | S | 172 |
| Pontiac 6000 | S.W. | M | 60 | Nissan 200SX | 2-Dr. | S | 165 |
| Ford Escort | S.W. | S | 60 | Dodge Daytona | 2-Dr. | S | 164 |

*P.V. = passenger van; S.W. = station wagon; Sp. = sports or specialty.

**Relative Average Loss Payment. 100 represents $191, the average for all 1986 passenger cars.

Source: Highway Loss Data Institute

## Collision Coverages
## Relative Average Loss Payments per Insured Vehicle Year by Car Size and Body Style Group, 1986 Models




*100 represents $191, the average for all 1986 passenger vehicles.

Source: Prepared by Insurance Information Institute based on data developed by the Highway Loss Data Institute

## Automobile Personal Injury Insurance Claims, Passenger Cars

As in past years, the relative safety of larger model cars was underscored by the results of a study of personal injury claims growing out of accidents involving 1983–1985 model passenger vehicles. The 1986 study by the Highway Loss Data Institute (HLDI) showed that large models again dominate the list of cars with the best overall personal injury insurance claim record.

The survey of medical claim frequencies for injuries to occupants of the late-model cars was based on "no-fault" personal injury protection experience in 19 states and the District of Columbia. Claim frequencies were calculated for all medical claims, with breakdowns of claims with medical payments exceeding $250, $500 and $1,000. Underlying data were provided by 13 automobile insurers.

The car with the best experience was the Pontiac Parisienne station wagon, with an overall claim frequency rate 50 percent below the average for all cars. The Oldsmobile Custom Cruiser station wagon had the lowest frequency of claims exceeding $250. The midsize Volvo 240 station wagon had the lowest relative frequency of claims greater than $500, and the Plymouth Voyager passenger van had the lowest frequency of claims greater than $1,000.

Thirteen cars were found to have at least one claim frequency result that was more than 40 percent lower than the result for all cars combined, as shown in the table at the top of the next page. Of the 13 models with the best injury experience, 11 were manufactured in the United States, seven by General Motors.

As shown in the second table on the next page, 14 models had at least one claim frequency more than 40 percent worse than the all-car result for any of the claim size categories. All 14 were small models, and eight of the 14 were imported models from Japan.

Among the cars with the worst injury loss experience, the Mitsubishi Tredia had the highest overall injury claim frequency, 62 percent above average, and the highest frequency of claims exceeding $250, 77 percent above average. The two-door Chevrolet Chevette had the highest frequency of claims exceeding $500, while the two-door Chevette and the four-door Nissan Sentra had the largest frequency of claims higher than $1,000.

HLDI noted that claims exceeding $250 represented about half of all claims, but accounted for nearly 97 percent of the total dollars in medical payments. Claims in excess of $1,000 accounted for nearly 85 percent of the total dollars.

In the exhibits on the next page, tabulations of car models with the best and the worst injury loss experience are expressed in relative terms, with 100 representing the average claim frequency for all passenger cars.

## 1983-1985 Passenger Cars with the Best Loss Experience, Relative Injury Claim Frequencies, Personal Injury Protection Coverages

| Make & Series | Body Style | Car Size** | Relative Claim Frequencies by Size of Claim* All | Over $250 | Over $500 | Over $1,000 |
|---|---|---|---|---|---|---|
| Pontiac Parisienne# | Sta. Wgn. | L | 50 | | | |
| Buick Electra | Sta. Wgn. | L | 55 | | | |
| Mercedes 300SD/380SE | Spec. | L | 55 | 58 | | |
| Volvo 240 | Sta. Wgn. | M | 59 | 57 | 49 | |
| Oldsmobile Delta 88 | 4-Dr. | L | 59 | 57 | 55 | 56 |
| Cadillac Brougham 2-Dr. | Spec. | L | 59 | | | |
| Buick LeSabre | 4-Dr. | L | 60 | 57 | 56 | 58 |
| Oldsmobile Custom Cruiser | Sta. Wgn. | L | 62 | 53 | 55 | |
| Plymouth Voyager# | Pass. Van | L | 63 | 62 | 55 | 51 |
| Chevrolet Caprice | Sta. Wgn. | L | 63 | 55 | 57 | 56 |
| Dodge Caravan# | Pass. Van | L | 64 | 60 | 61 | 58 |
| American Eagle | Sta. Wgn. | M | 65 | 58 | | |
| Ford Crown Victoria | Sta. Wgn. | L | 70 | 59 | 59 | |

*Numbers reflect the frequency of claims relative to the value 100 which represents the average for all models.

**S (Small): Wheelbase up to 99 inches; M (Midsize): Wheelbase greater than 99 inches to 109 inches; L (Large): Wheelbase greater than 109 inches.

# 1984 and 1985 models only.

Source: Highway Loss Data Institute

## 1983-1985 Passenger Cars with the Worst Loss Experience, Relative Injury Claim Frequencies, Personal Injury Protection Coverages

| Make & Series | Body Style | Car Size** | Relative Claim Frequencies by Size of Claim* All | Over $250 | Over $500 | Over $1,000 |
|---|---|---|---|---|---|---|
| Mitsubishi Tredia | 4-Dr. | S | 162 | 177 | | |
| Chevrolet Chevette | 2-Dr. | S | 159 | 171 | 171 | 163 |
| Isuzu I-Mark | 4-Dr. | S | 151 | | | |
| Mercury Lynx | 2-Dr. | S | 150 | 146 | 143 | 147 |
| Nissan Pulsar | 2-Dr. | S | 149 | 150 | 160 | 157 |
| Nissan Sentra | 4-Dr. | S | 147 | 152 | 159 | 163 |
| Renault Encore# | 4-Dr. | S | 146 | | | |
| Ford EXP | Spec. | S | 145 | 146 | 138 | |
| Nissan Sentra | 2-Dr. | S | 143 | 142 | 144 | 144 |
| Chevrolet Chevette | 4-Dr. | S | 142 | 153 | 151 | 147 |
| Pontiac 1000 | 2-Dr. | S | 142 | 152 | | |
| Mitsubishi Cordia | 2-Dr. | S | 142 | 141 | | |
| Nissan 200SX# | 2-Dr. | S | 139 | 151 | 157 | |
| Toyota Corolla# | 2-Dr. | S | 137 | 146 | 149 | |

*Numbers reflect the frequency of claims relative to the value 100 which represents the average for all models.

**S (Small): Wheelbase up to 99 inches; M (Midsize): Wheelbase greater than 99 inches to 109 inches; L (Large): Wheelbase greater than 99 inches.

# 1984 and 1985 models only.

Source: Highway Loss Data Institute

## Insured Automobile Theft Losses

Among individual models of passenger automobiles, cars designed in Europe turn up most frequently in theft insurance claims, although analysis suggests that the thieves often are less interested in the cars themselves than in their radios and other component parts.

As a group, sports and specialty cars continue to be favorite targets of thieves, with dollar losses on average exceeding by far those resulting from thefts of other styles of passenger vehicles.

Those were among the key findings of a 1987 study by the Highway Loss Data Institute (HLDI) of the frequency and size of insurance theft losses involving 1984, 1985 and 1986 models. HLDI said that in each model year, sports and specialty models accounted for about 15 percent of the total insurance exposure, but nearly 50 percent of the total dollars paid in theft claims.

The study summarized findings involving theft claims for 1986 model passenger cars during their first year of availability, 1985 models during their first two years and 1984 models during their first three years. It took into account any theft losses paid under the comprehensive portion of automobile insurance policies, including those involving thefts of items from cars as well as thefts of the cars. The study was based on data provided by 13 insurance companies.

HLDI identified 12 car models with relative claim frequencies more than five times the average for all cars in at least one of the three years or more than four times the average in any two of the three model years. Six of the 12 are Volkswagen models, and HLDI said that except for the U.S.-made VW GTI and VW Golf, all are European imports. With the exception of two Mercedes-Benz models, the cars on the high theft frequency list all had lower-than-average loss payments per theft claim, giving rise to the suggestion that many of the claims are for stolen components (radios are frequently stolen from these models) rather than for the vehicle itself.

The VW GTI and the VW Convertible (the Cabriolet in 1985 and 1986; the Rabbit in 1984) had by far the highest reported theft claim frequencies, averaging as much as 12 times the result for all cars combined in one model year. For each year, however, their average payments per claim were substantially less than the all-car average.

Among 11 listed cars with the highest relative average loss payments per insured vehicle year, 10 are sports or specialty models. Except for the Volkswagen Convertible, all had above average results for both claim frequency and average loss payment per claim. The 1984 models of the Mercedes-Benz 500SEL and Porsche 911 Coupe had the highest average loss payments per insured vehicle year, in each case more than 10 times the all-car result. The Porsche 911 Coupe also had the highest average loss payment per claim, with a relative index of 529 translating to an average claim payment of $9,692.

Ford's Escort station wagon headed the list of cars with the lowest claim frequency, nearly seven times better than the all-car average. Of the 14 cars with the best results, all but one—the Subaru station wagon—are domestic models and all but two are four-door models or station wagons.

Station wagons dominated a list of 15 models with the lowest average loss payments per insured vehicle year. The best result was that of the 1986 Ford Taurus station wagon, whose payments averaged only three percent of the all-car average, or approximately 70 cents per year.

HLDI said that, as a group, station wagons and passenger vans represented more than 10 percent of the insured exposure in each model year, but accounted for fewer than five percent of the claims and only about three percent of paid theft losses.

The table that follows reflects, for 1986, 1985 and 1984 passenger cars, the findings by car size relative to the results for all vehicles combined, with 100 representing the average of all cars for each model year. Thus, a designation of 49 for 1986 small station wagons and passenger vans means a result which is 51 percent lower than the all-car average for 1985; a designation of 165 for 1986 large sports and specialty cars translates into a result 65 percent higher than the average.

## Loss Experience Summary by Vehicle Size and Model Year, Theft Losses, 1984-86 Passenger Cars

| Car Size Group | Relative Claim Frequency 1986 Models | 1985 Models | 1984 Models | Relative Average Loss Payment per Claim 1986 Models | 1985 Models | 1984 Models | Relative Average Loss Payment per Insured Vehicle Year 1986 Models | 1985 Models | 1984 Models |
|---|---|---|---|---|---|---|---|---|---|
| Two-Door Models | | | | | | | | | |
| Small | 111 | 114 | 103 | 55 | 65 | 71 | 62 | 74 | 74 |
| Midsize | 92 | 84 | 86 | 148 | 132 | 121 | 137 | 111 | 104 |
| Large | 70 | 100 | 106 | 112 | 116 | 108 | 79 | 116 | 114 |
| Four-Door Models | | | | | | | | | |
| Small | 127 | 97 | 78 | 54 | 57 | 61 | 69 | 55 | 47 |
| Midsize | 67 | 64 | 64 | 77 | 70 | 69 | 52 | 45 | 44 |
| Large | 82 | 80 | 94 | 118 | 101 | 93 | 97 | 81 | 88 |
| Station Wagons/ Passenger Vans | | | | | | | | | |
| Small | 49 | 50 | 42 | 44 | 65 | 64 | 21 | 33 | 27 |
| Midsize | 36 | 39 | 45 | 41 | 48 | 54 | 15 | 19 | 25 |
| Large | 46 | 45 | 51 | 52 | 67 | 76 | 24 | 30 | 39 |
| Sports & Specialty | | | | | | | | | |
| Small | 188 | 179 | 181 | 116 | 150 | 163 | 217 | 269 | 295 |
| Midsize | 197 | 217 | 230 | 169 | 124 | 115 | 331 | 270 | 266 |
| Large | 165 | 192 | 221 | 132 | 149 | 153 | 218 | 287 | 338 |
| Actual Value of 100 Base | 10.6* | 11.4* | 10.9* | $2,086 | $1,998 | $1,831 | $22.1 | $22.9 | $20.0 |

*Frequencies of claims per 1,000 insured vehicles.

NOTE: Small cars are defined as vehicles with wheelbases less than 100 inches; midsize cars as vehicles with wheelbases of 100 to 109 inches; large cars with wheelbases greater than 109 inches.

Source: Highway Loss Data Institute

## Accidents at Work

The accident record of the nation's work places showed significant improvement in 1986 as the number of job-related fatalities declined by about 6 percent despite an increase in the employed labor force. The number of injuries declined by 10 percent.

Data compiled by the National Safety Council reflect a 9.3 percent decrease in the number of fatalities per 100,000 workers and a 12 percent drop in the injury rate. Both the fatality rate and the injury rate have been declining for several years.

The dollar cost of work accidents was more than 6 percent lower than the record $35 billion set in 1985. While the dollar loss figure of 1986 was more than seven times that of 1960 and four times that of 1970, the general upward trend should be interpreted in terms of a growing work force (a decline in 1982 was the first since 1975) and a steady diminution in the value of the dollar. Applying these factors in terms of a constant 1967 dollar, the cost of occupational accidents averaged $91.28 per worker in 1986 as compared to $75.36 in 1960 and $87.42 in 1970.

The cost of work accidents includes wages lost and medical expenses, as well as indirect loss resulting from damage to equipment and materials, production delays, time lost by workers not involved in the accident, and the administrative costs of insurance.

### Work Fatalities and Injuries, 1960-1986

| Year | Employed Labor Force (Millions) | Fatalities | Fatalities per 100,000 Workers | Injuries | Injuries per 100,000 Workers |
|---|---|---|---|---|---|
| 1960 | 65.8 | 13,800 | 21.0 | 1,950,000 | 2,964 |
| 1970 | 78.7 | 13,800 | 17.5 | 2,200,000 | 2,795 |
| 1975 | 85.8 | 13,000 | 15.2 | 2,200,000 | 2,564 |
| 1980 | 99.3 | 13,200 | 13.3 | 2,200,000 | 2,216 |
| 1981 | 100.4 | 12,500 | 12.5 | 2,100,000 | 2,092 |
| 1982 | 99.5 | 11,900 | 12.0 | 1,900,000 | 1,910 |
| 1983 | 100.8 | 11,700 | 11.6 | 1,900,000 | 1,885 |
| 1984 | 105.0 | 11,500 | 11.1 | 1,900,000 | 1,810 |
| 1985 | 107.2 | 11,400 | 10.8 | 2,000,000 | 1,866 |
| 1986 | 109.6 | 10,700 | 9.8 | 1,800,000 | 1,642 |

Sources: Bureau of Labor Statistics; National Safety Council

### Economic Losses* from Work Accidents, 1960-1986

| Year | Economic Loss | Cost per Worker 1967 Dollars | Year | Economic Loss | Cost per Worker 1967 Dollars |
|---|---|---|---|---|---|
| 1960 | $ 4,400,000,000 | $ 75.36 | 1982 | 29,400,000,000 | $102.21 |
| 1970 | 8,000,000,000 | 87.42 | 1983 | 31,200,000,000 | 103.66 |
| 1975 | 14,000,000,000 | 101.33 | 1984 | 30,800,000,000 | 94.16 |
| 1980 | 28,000,000,000 | 114.48 | 1985 | 35,000,000,000 | 101.26 |
| 1981 | 30,200,000,000 | 110.40 | 1986 | 32,800,000,000 | 91.28 |

*Figures do not include direct losses in business fires.

Sources: National Safety Council; Bureau of Labor Statistics Consumer Prices

## Occupational Disease

The growing number of asbestos-related lawsuits and mounting concern over the possible effects of exposure to toxic materials in general have helped to focus attention in recent years on occupational diseases and the way their victims are compensated.

The insurance system that provides compensation for workplace injuries and diseases—workers' compensation—was developed early in the twentieth century when the greatest concern was how to compensate for traumatic injuries, such as fractures, lacerations and amputations resulting from on-the-job accidents. Those responsible for providing compensation today face the challenge of adapting that system, which has worked well for traumatic injuries, to the new occupational risks which have emerged in the latter part of the century.

Actually, occupational disease—the illness and chronic injuries that result from exposure to harmful substances or conditions in the workplace—is not a new phenomenon. The link between certain diseases and substances prevalent in the workplace environment was made more than two centuries ago with the discovery that exposure to creosote, a combustion byproduct that collects on the inside of chimney walls, would cause cancer of the scrotum in chimney sweeps. Other workplace disease relationships, such as coal mining and black lung disease, have been established since that time.

However, asbestos added a new relationship to the occupational disease problem because its use as an insulating material had been so widespread. The issue received countrywide attention when Manville Corporation, one of the largest producers of asbestos, filed for bankruptcy in 1982 in an effort to find a solution to mounting asbestos-related claims. Since then, a reorganization plan has been approved that would pay for present and future claims alleging asbestos-related injuries and damage.

Manville's plight and the subsequent publicity about the hazards of asbestos caused federal and state agencies to take steps to reduce the hazards associated with asbestos and to eliminate its use wherever an appropriate substitute exists.

### Long Latency and Causality

For insurance companies, insurance agents, employers and workers exposed to hazardous substances, the problems concerning compensation for occupational disease stem from the difficulty of pinpointing when and why an illness occurred. Until these questions have been answered, liability cannot be assigned to the responsible party and/or to its insurer for settlement of the claim.

The time- and event-related circumstances surrounding occupational disease are not as clear-cut as they are for the typical on-the-job injury.

Fractures, sprains, and other traumatic injuries usually are caused by a sudden, single, identifiable incident such as a file cabinet tipping over or a hand being caught in a machine. That an injury occurred at the time and as a result of the accident is readily apparent.

But with workers who contract debilitating diseases as a result of exposure to hazardous substances, there often is a time lag between the first exposure to a substance and the point at which the person becomes ill. This interval is known as the latency period.

While some diseases such as skin rashes caused by exposure to caustic materials show up in less than a year, the latency period for illness resulting from exposure to carcinogenic substances can be a decade or more—as long as 50 years for some asbestos-related diseases.

As a result of the often long time lag between the exposure and the manifestation of illness, workers' compensation claims sometimes have been barred by statutes of limitation which begin to run at the time of exposure. Moreover, there often has been controversy as to whether benefits should be paid at levels in effect at the time of exposure or at the generally higher levels in effect when the disease becomes manifest. Also, there have been difficulties in determining at what point in an employee's work history the illness was contracted and who was responsible for the payment of benefits.

The problem is further compounded when a worker has been exposed to a substance made by more than one manufacturer and when a company has been insured by more than one insurer during the period from the worker's initial exposure to the point at which the disease was discovered.

A further problem is that of causality. Even when a statistically significant number of cases of cancer or other serious illnesses are reported in conjunction with evidence of possible exposure to harmful substances, scientific cause-and-effect relationships generally are hard to prove and a precise diagnosis of certain diseases is possible only with an autopsy.

Moreover, diseases associated with hazardous substances usually are not uniquely attributable to a single work-related cause. Cancer, for example, may be caused by one or more of many factors, not just by substances found in the workplace.

At the end of May 1987, the presiding judge in a San Francisco trial, in which five former asbestos manufacturers asked the court to decide which insurers should pay the claims of thousands of asbestos victims, ruled that the "triple trigger" theory would apply. That meant that coverage would be provided by all policies in effect during the periods of exposure to asbestos, the subsequent development of the disease (the latency period) and the disease's manifestation. The ruling could set a precedent for future cases involving other harmful substances which cause illnesses often discovered decades after exposure. The trial was expected to continue for another year.

## Extent of the Problem

A study by the Rand Corporation in 1984 provided some indication of how serious the crisis has become. The study of 3,000 asbestos-related lawsuits showed that the cases took an average of two years and eight months to close, with 11 percent taking six years. Only 37 percent of the expenses and compensation paid by defendants and insurers went to asbestos victims; the other 63 percent went to pay litigation costs.

While no one has any "hard" numbers as to the extent of occupational disease, one government estimate put the number of Americans now disabled by occupational disease at close to two million. Although only about 1 percent of all workers' compensation claims are occupational disease cases, some insurance industry experts believe the causal effects of technological developments and advances in disease detection techniques could push the figure much higher in the decades ahead.

An official at Lloyd's of London estimated that asbestos claims alone could cost the insurance business as much as $30 billion through the year 2000.

## Proposals to Facilitate Compensation

Efforts to resolve the problems involved in compensating for long-term latent occupational diseases have led to a number of proposals. A critical issue is whether the present method of setting insurance rates and funding benefits would be adequate if there were a substantial increase in the number and cost of occupational disease claims.

The National Association of Insurance Commissioners' Occupational Disease Advisory Committee report, released in 1985, includes comprehensive recommendations intended to ensure that an adequate and equitable workers' compensation remedy is available for all worthy occupational disease claims.

After a two-year study, the U.S. Chamber of Commerce concluded that the existing mix of fault and no-fault remedies is working to compensate most people who are injured either in the workplace or by products, although changes are needed in both the product liability tort law system and state workers' compensation schemes to deal with work-related illnesses.

The insurance industry also is attacking the problem of high legal costs and long delays in settling liability claims by offering an alternative to the traditional commercial general liability insurance policy—the policy that includes coverage for liability stemming from use of a product. The newer "claims-made" policy facilitates the settlement of product liability suits involving long-term latent diseases because the need to establish when the injury occurred no longer is critical. With a claims-made policy, the insurer providing product liability coverage at the time the injury is reported is liable for payment of the damages.

## Crimes against Property

The dollar cost of crime continues to run into the billions, and data of the Federal Bureau of Investigation reflected an increase of 6 percent in the overall crime index in 1986.

The FBI said the number of crimes against property, of which business and industry are major victims, increased about 6 percent in 1986. Dollar losses from the crimes of robbery, burglary, larceny and motor vehicle theft rose by nearly 12 percent to $12.3 billion.

But the overall cost of crime is much higher when other kinds of offenses, including such costly crimes as embezzlement, arson and vandalism, are taken into account.

The FBI said it received complete reports on 87,585 arson offenses in 1986, up from the 1985 total of 86,455, although estimated dollar losses dropped from $1.3 billion to $1.2 billion. (The National Fire Protection Association estimated the cost of incendiary and suspicious fires in 1986 at some $1.68 billion.)

The severity of crime's impact on the property/casualty insurance industry is reflected in a 1984 report of the All-Industry Research Advisory Council (AIRAC) showing that increases in crime-related insurance losses were considerably greater than increases in overall incurred losses. AIRAC reported that from 1979 to 1981, overall property and casualty losses increased by 22 percent while crime-related losses jumped by 43 percent, with the homeowners multiple-peril line the hardest hit of all lines.

Major crimes against property reported by the FBI in 1986:

**Robbery:** 542,780 offenses; property loss $323 million.

**Burglary:** 3,241,400 offenses; property loss $3.1 billion.

**Larceny-Theft:** 7,257,200 offenses; property loss $2.9 billion.

**Motor Vehicle Theft:** 1,224,100 offenses; property loss $6.0 billion.

### Crimes against Property, 1977-1986*

| Year | Robbery | Burglary | Larceny-Theft |
|---|---|---|---|
| 1977 | 412,610 | 3,071,500 | 5,905,700 |
| 1978 | 426,930 | 3,128,300 | 5,991,000 |
| 1979 | 480,700 | 3,327,700 | 6,601,000 |
| 1980 | 565,840 | 3,795,200 | 7,136,900 |
| 1981 | 592,910 | 3,779,700 | 7,194,400 |
| 1982 | 553,130 | 3,447,100 | 7,142,500 |
| 1983 | 506,570 | 3,129,900 | 6,712,800 |
| 1984 | 485,010 | 2,984,400 | 6,591,900 |
| 1985 | 497,870 | 3,073,300 | 6,926,400 |
| 1986 | 542,780 | 3,241,400 | 7,257,200 |

*For additional data on automobile thefts, see page 97.

Source: Federal Bureau of Investigation

## Motor Vehicle Thefts

Motor vehicle thefts in the United States increased about 11 percent from 1985 to 1986. Decreases were recorded in nine states, however. Countrywide, the motor vehicle theft rate increased from 628 to 673 per 100,000 registered vehicles.

### Motor Vehicle Registrations and Thefts, 1977-1986

| Year | Motor Vehicle Registrations* | Thefts* | Ratio of Vehicles Stolen/Regist. | Thefts per 100,000 Registrations |
|---|---|---|---|---|
| **1977** | 148,880,000 | 977,700 | 1 in 152 | 657 |
| **1978** | 153,637,000 | 1,004,100 | 1 in 153 | 654 |
| **1979** | 157,226,178 | 1,112,800 | 1 in 141 | 708 |
| **1980** | 161,614,294 | 1,131,700 | 1 in 143 | 700 |
| **1981** | 164,287,643 | 1,087,800 | 1 in 151 | 662 |
| **1982** | 165,298,024 | 1,062,400 | 1 in 156 | 643 |
| **1983** | 167,718,000 | 1,007,900 | 1 in 166 | 601 |
| **1984** | 169,446,281 | 1,032,200 | 1 in 164 | 609 |
| **1985** | 175,709,000 | 1,102,900 | 1 in 159 | 628 |
| **1986** | 181,890,000** | 1,224,100 | 1 in 149 | 673 |

*Includes motorcycles.
**Preliminary estimate.

Sources: Federal Bureau of Investigation; Federal Highway Administration.

### Motor Vehicle Thefts by States, 1985-1986

| State | 1986 | 1985 | % Change | State | 1986 | 1985 | % Change |
|---|---|---|---|---|---|---|---|
| Alabama | 10,821 | 10,395 | + 4.1 | Missouri | 22,233 | 18,345 | + 21.2 |
| Alaska | 3,224 | 3,159 | + 2.1 | Montana | 1,760 | 2,274 | – 22.6 |
| Arizona | 13,892 | 12,286 | + 13.1 | Nebraska | 2,678 | 2,506 | + 6.9 |
| Arkansas | 4,623 | 4,208 | + 9.9 | Nevada | 4,600 | 4,646 | – 1.0 |
| California | 205,597 | 177,237 | + 16.0 | New Hampshire | 2,338 | 1,982 | + 18.0 |
| Colorado | 15,876 | 13,988 | + 13.5 | New Jersey | 59,096 | 50,237 | + 17.6 |
| Connecticut | 14,258 | 14,007 | + 1.8 | New Mexico | 5,077 | 5,013 | + 1.3 |
| Delaware | 1,721 | 1,700 | + 1.2 | New York | 113,247 | 106,537 | + 6.3 |
| District of Columbia | 6,105 | 5,025 | + 21.5 | North Carolina | 13,186 | 11,950 | + 10.3 |
| Florida | 69,824 | 59,724 | + 16.9 | North Dakota | 814 | 810 | + 0.5 |
| Georgia | 26,264 | 22,050 | + 19.1 | Ohio | 40,396 | 37,896 | + 6.6 |
| Hawaii | 3,486 | 2,980 | + 17.0 | Oklahoma | 21,456 | 18,701 | + 14.7 |
| Idaho | 1,818 | 1,829 | – 0.6 | Oregon | 10,833 | 9,608 | + 12.7 |
| Illinois | 72,587 | 68,160 | + 6.5 | Pennsylvania | 42,130 | 38,904 | + 8.3 |
| Indiana | 18,027 | 18,064 | – 0.2 | Rhode Island | 6,871 | 6,320 | + 8.7 |
| Iowa | 4,514 | 4,423 | + 2.1 | South Carolina | 9,344 | 8,677 | + 7.7 |
| Kansas | 6,349 | 5,301 | + 19.8 | South Dakota | 699 | 721 | – 3.1 |
| Kentucky | 7,203 | 7,198 | + 0.1 | Tennessee | 26,109 | 23,105 | + 13.0 |
| Louisiana | 19,875 | 17,130 | + 16.0 | Texas | 119,121 | 99,528 | + 19.7 |
| Maine | 1,928 | 1,922 | + 0.3 | Utah | 3,716 | 3,893 | – 4.5 |
| Maryland | 24,334 | 20,246 | + 20.2 | Vermont | 980 | 877 | + 11.7 |
| Massachusetts | 52,866 | 50,346 | + 5.0 | Virginia | 12,702 | 11,224 | + 13.2 |
| Michigan | 73,193 | 75,233 | – 2.7 | Washington | 14,037 | 12,739 | + 10.2 |
| Minnesota | 12,142 | 10,980 | + 10.6 | West Virginia | 3,247 | 3,238 | + 0.3 |
| Mississippi | 3,940 | 4,075 | – 3.3 | Wisconsin | 12,145 | 10,582 | + 14.8 |
| | | | | Wyoming | 855 | 883 | – 3.2 |

Source: Federal Bureau of Investigation.

## Arrests by Age Group

Data compiled by the Federal Bureau of Investigation show that persons from 15 through 24 years of age — and, to a lesser extent, persons in the 25-29 age bracket — are involved in a disproportionately high number of arrests for crimes and offenses which often have a direct impact on losses paid by property and casualty insurers.

FBI records show that a majority of all arrests in 1986 for burglary, robbery and motor vehicle theft were of persons in the 15-24 age group, who together comprised only 16.2 percent of the population. Members of that age group also accounted for nearly half of all arrests for larceny and drug abuse.

Persons under age 20 accounted for about 48.1 percent of all arrests for the crime of arson.

About one of every four arrests for driving while under the influence of intoxicants or drugs involved a person in the 20-24 age group; more than one of every five arrests in that category was of a person in the 25-29 age bracket.

### Arrests, Distribution by Age, Selected Offenses, 1986

| | | Burglary | | Robbery | | Larceny-Theft | |
|---|---|---|---|---|---|---|---|
| Age Group | % of Population | Arrests | % of Total | Arrests | % of Total | Arrests | % of Total |
| Under 15 | 21.6% | 47,080 | 12.5% | 6,615 | 5.3% | 156,033 | 13.2% |
| 15-19 | 7.7 | 140,111 | 37.3 | 37,390 | 30.1 | 345,269 | 29.2 |
| 20-24 | 8.5 | 80,215 | 21.4 | 32,918 | 26.5 | 208,714 | 17.7 |
| 25-29 | 9.1 | 50,213 | 13.4 | 23,035 | 18.5 | 155,965 | 13.2 |
| 30-34 | 8.6 | 29,519 | 7.9 | 12,998 | 10.5 | 115,503 | 9.8 |
| 35-39 | 7.8 | 15,244 | 4.1 | 6,410 | 5.2 | 75,374 | 6.4 |
| 40-44 | 6.0 | 6,559 | 1.7 | 2,512 | 2.0 | 40,846 | 3.5 |
| 45-49 | 4.9 | 2,931 | 0.8 | 1,119 | 0.9 | 25,760 | 2.2 |
| 50-54 | 4.5 | 1,630 | 0.4 | 537 | 0.4 | 18,313 | 1.5 |
| 55-59 | 4.7 | 979 | 0.3 | 295 | 0.2 | 14,556 | 1.2 |
| 60-64 | 4.5 | 521 | 0.1 | 207 | 0.2 | 10,688 | 0.9 |
| 65 & Older | 12.1 | 542 | 0.1 | 209 | 0.2 | 15,078 | 1.3 |
| All Ages | 100.0* | 375,544 | 100.0 | 124,245 | 100.0 | 1,182,099 | 100.0 |

| | Motor Vehicle Theft | | Arson | | Drunk Driving | | Drug Abuse | |
|---|---|---|---|---|---|---|---|---|
| Age Group | Arrests | % of Total | Arrests | % of Total | Arrests | % of Total | Arrests | % of Total |
| Under 15 | 11,961 | 9.3% | 3,837 | 24.7% | 456 | 0.0% | 9,374 | 1.4% |
| 15-19 | 56,216 | 43.7 | 3,638 | 23.4 | 101,741 | 7.0 | 130,682 | 18.9 |
| 20-24 | 26,270 | 20.4 | 2,292 | 14.8 | 340,787 | 23.4 | 195,156 | 28.2 |
| 25-29 | 15,641 | 12.2 | 1,852 | 11.9 | 321,068 | 22.0 | 159,240 | 23.0 |
| 30-34 | 8,916 | 6.9 | 1,346 | 8.7 | 230,334 | 15.8 | 98,674 | 14.3 |
| 35-39 | 4,719 | 3.7 | 981 | 6.3 | 162,163 | 11.1 | 53,310 | 7.7 |
| 40-44 | 2,336 | 1.8 | 591 | 3.8 | 105,562 | 7.2 | 22,125 | 3.2 |
| 45-49 | 1,139 | 0.9 | 386 | 2.5 | 71,101 | 4.9 | 10,686 | 1.5 |
| 50-54 | 634 | 0.5 | 261 | 1.7 | 49,221 | 3.4 | 5,610 | 0.8 |
| 55-59 | 335 | 0.3 | 159 | 1.0 | 35,395 | 2.4 | 3,417 | 0.5 |
| 60-64 | 183 | 0.1 | 92 | 0.6 | 22,588 | 1.5 | 2,066 | 0.3 |
| 65 & Older | 164 | 0.1 | 88 | 0.6 | 18,115 | 1.2 | 1,542 | 0.2 |
| All Ages | 128,514 | 100.0 | 15,523 | 100.0 | 1,458,531 | 100.0 | 691,882 | 100.0 |

*Percentage does not add to total because of rounding.

Source: Federal Bureau of Investigation

## Aircraft Accidents

Some 1,029 persons died in aircraft accidents in the United States in 1986, 546 fewer than in the preceding year. The decline was attributable primarily to the fact that only three persons were killed in accidents involving the nation's major scheduled and non-scheduled airlines, as compared to 526 fatalities in such accidents in 1985.

The major airlines flew a record 3.85 billion miles during 1986, according to preliminary figures from the National Transportation Safety Board. The three deaths occurred in a single accident, one of 24 recorded during the year.

Scheduled commuter carriers also improved their accident record in 1986 as the number of crashes dropped to 14 from 17 in 1985, fatal accidents declined from six to two, and fatalities declined from 35 to four.

For the third straight year, accidents in general aviation (aircraft other than large airlines, commuters and air taxis) reached a new low, although the number of fatalities was up by about 2 percent, from 937 to 958. The National Transportation Safety Board reported 2,568 accidents—466 of them resulting in fatalities—involving general aviation.

On-demand air taxis recorded 118 accidents in 1986, 31 of them resulting in fatalities. The preliminary death toll was set at 64.

### Aircraft Accidents in 1986*

| | Aircraft Hours Flown | Accidents | Fatal Accidents | Fatalities | Accidents per 100,000 Flight Hours |
|---|---|---|---|---|---|
| U.S. Airlines: | | | | | |
| Scheduled | 8,941,000 | 22 | 1 | 3 | 0.246 |
| Non-scheduled | 323,000 | 2 | 0 | 0 | 0.619 |
| Scheduled Commuter Carriers | 1,707,000 | 14 | 2 | 4 | 0.82 |
| Non-Scheduled Air Taxis | 2,763,000 | 118 | 31 | 64 | 4.27 |
| General Aviation | 30,361,000 | 2,568 | 466 | 958 | 8.46 |

*Preliminary data.

Source: National Transportation Safety Board

### Accidents, Scheduled Airlines, 1982-1986

| Year | Aircraft Hours Flown | Accidents | Fatal Accidents | Fatalities | Accidents per 100,000 Flight Hours |
|---|---|---|---|---|---|
| 1982 | 6,440,163 | 15 | 3 | 233 | 0.233 |
| 1983 | 6,649,009 | 23 | 4 | 15 | 0.346 |
| 1984 | 7,365,435 | 14 | 1 | 4 | 0.190 |
| 1985 | 7,831,000 | 17 | 4 | 197 | 0.217 |
| 1986* | 8,941,000 | 22 | 1 | 3 | 0.246 |

*Preliminary data.

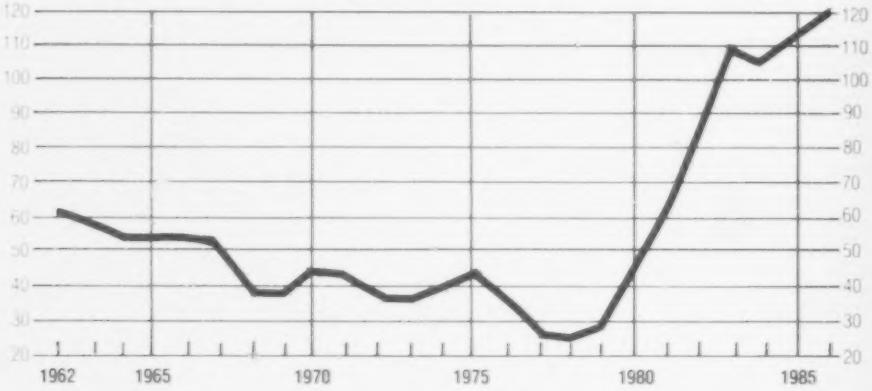
Source: National Transportation Safety Board

## Business Failure Trends

The number of business failures in the United States rose by nearly 7 percent in 1986, to 61,232 from 57,253 in 1985. Resulting dollar liabilities jumped from $36.9 billion to an estimated $44 billion.

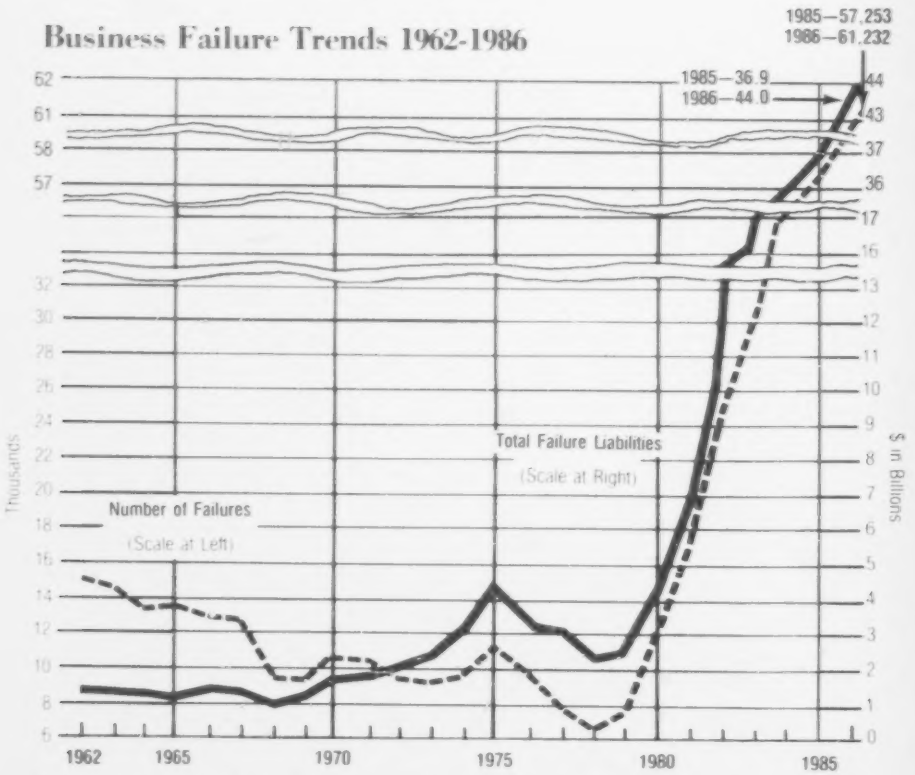
Dun & Bradstreet said the failure rate increased from 115 per 10,000 businesses in 1985 to 120 in 1986. All 1986 data are preliminary.

### Failure Rate per 10,000 Businesses 1962-1986




Source: Insurance Information Institute, based on data provided by the Dun & Bradstreet Corporation

### Business Failure Trends 1962-1986




Source: Insurance Information Institute, based on data provided by the Dun & Bradstreet Corporation

## Health Insurance Benefits

The amount of health insurance benefits paid out annually in the United States totaled more than $238 billion in 1985, with Medicare paying a larger share than any other single category of health care provider. Health insurance benefits paid by Medicare jumped by 9.1 percent from $64.6 billion in 1984 to $70.5 billion in 1985.

Private insurance companies paid some $60 billion in health insurance benefits in 1985, up 4.6 percent from about $57.3 billion in the preceding year.

The following table compares the amounts of health insurance benefits paid in 1984 and 1985 by private insurers and by other guarantors of such benefits, including Medicare and Medicaid in the government sector.

| | 1985 | 1984 | % Change |
|---|---|---|---|
| Private Insurers | $ 59,962,000,000 | $57,338,000,000 | + 4.6% |
| Blue Cross, Blue Shield | 37,540,000,000 | 35,373,000,000 | + 5.0 |
| Other Plans* | 32,534,000,000 | 26,022,000,000 | + 25.0 |
| Private Sector Total** | $130,036,000,000 | $108,880,000,000 | + 19.4 |
| Medicare | 70,520,000,000 | 64,627,000,000 | + 9.1 |
| Medicaid | 37,508,000,000 | 33,891,000,000 | + 10.7 |
| Totals | $238,064,000,000 | $207,398,000,000 | + 14.8 |

*Includes Health Maintenance Organizations, employer-employee sponsored plans, etc.

**Private sector total eliminates duplications that result from private insurers and the Health Care Financing Administration ("Other Plans") both reporting Administrative Services Only benefits in their data.

Sources: Health Insurance Association of America; U.S. Health Care Financing Administration.

A review by the American Hospital Association disclosed that in 1985 the average cost to hospitals per patient stay ranged from a low of $2,036.79 in Mississippi to highs of $4,961.60 in the District of Columbia and $4,193.71 in Massachusetts. The range of the average cost to hospitals of a day's stay was from $282.05 in South Dakota to $693.44 in Alaska. Countrywide, the average cost to hospitals per patient day increased 12 percent from $411.10 in 1984 to $460.19 in 1985. The average length of a hospital stay dropped slightly from 7.3 to 7.1 days.

### The Cost of Hospitalization and Health Insurance Benefits Paid by Private Insurers

| State | Benefits Paid by Insurance Cos. (in thousands) 1984* | Average Cost to Hospital per Patient Day 1985 | Average Length Hospital Stay in Days 1985 | Average Cost to Hospital per Patient Stay 1985 |
|---|---|---|---|---|
| Alabama | $ 418,000 | $388.94 | 6.9 | $2,653.32 |
| Alaska | 94,000 | 693.44 | 5.4 | 3,741.30 |
| Arizona | 407,000 | 591.15 | 6.0 | 3,546.73 |
| Arkansas | 205,000 | 380.50 | 6.0 | 2,292.06 |
| California | 3,708,000 | 653.70 | 6.2 | 4,049.96 |

| State | Benefits Paid by Insurance Cos. (in thousands) 1984* | Average Cost to Hospital per Patient Day 1985 | Average Length Hospital Stay in Days 1985 | Average Cost to Hospital per Patient Stay 1985 |
|---|---|---|---|---|
| Colorado | $ 483,000 | $ 486.25 | 6.6 | $3,221.15 |
| Connecticut | 479,000 | 502.43 | 7.2 | 3,609.67 |
| Delaware | 79,000 | 474.16 | 7.1 | 3,356.62 |
| District of Columbia | 253,000 | 612.28 | 8.1 | 4,961.60 |
| Florida | 1,665,000 | 494.09 | 6.9 | 3,381.46 |
| Georgia | 847,000 | 385.71 | 6.5 | 2,500.80 |
| Hawaii | 64,000 | 420.41 | 8.3 | 3,521.74 |
| Idaho | 71,000 | 372.60 | 6.4 | 2,402.41 |
| Illinois | 2,129,000 | 498.18 | 7.3 | 3,607.22 |
| Indiana | 634,000 | 445.97 | 6.6 | 2,941.64 |
| Iowa | 359,000 | 359.05 | 7.6 | 2,734.54 |
| Kansas | 278,000 | 400.99 | 7.4 | 2,953.58 |
| Kentucky | 285,000 | 366.77 | 6.4 | 2,322.68 |
| Louisiana | 677,000 | 475.05 | 6.0 | 2,841.93 |
| Maine | 115,000 | 393.79 | 7.3 | 2,870.23 |
| Maryland | 480,000 | 442.72 | 7.3 | 3,237.37 |
| Massachusetts | 644,000 | 499.61 | 8.4 | 4,193.71 |
| Michigan | 792,000 | 507.37 | 7.3 | 3,666.41 |
| Minnesota | 476,000 | 368.72 | 9.0 | 3,301.81 |
| Mississippi | 297,000 | 319.13 | 6.4 | 2,036.79 |
| Missouri | 954,000 | 456.92 | 7.4 | 3,383.20 |
| Montana | 79,000 | 312.24 | 8.6 | 2,658.42 |
| Nebraska | 240,000 | 347.06 | 8.4 | 2,892.07 |
| Nevada | 144,000 | 577.07 | 5.9 | 3,953.14 |
| New Hampshire | 99,000 | 421.98 | 6.3 | 2,644.11 |
| New Jersey | 912,000 | 400.27 | 7.3 | 2,914.07 |
| New Mexico | 175,000 | 501.37 | 5.7 | 2,837.43 |
| New York | 2,489,000 | 419.30 | 9.4 | 3,929.98 |
| North Carolina | 633,000 | 355.73 | 6.8 | 2,416.31 |
| North Dakota | 63,000 | 321.59 | 9.2 | 2,917.58 |
| Ohio | 1,238,000 | 493.25 | 7.0 | 3,427.50 |
| Oklahoma | 417,000 | 455.25 | 6.2 | 2,814.37 |
| Oregon | 266,000 | 549.03 | 5.3 | 2,878.89 |
| Pennsylvania | 1,142,000 | 468.07 | 7.3 | 3,412.17 |
| Rhode Island | 57,000 | 447.27 | 7.7 | 3,432.11 |
| South Carolina | 311,000 | 357.84 | 7.0 | 2,508.00 |
| South Dakota | 106,000 | 282.05 | 8.7 | 2,442.00 |
| Tennessee | 597,000 | 397.34 | 6.8 | 2,708.91 |
| Texas | 2,468,000 | 460.98 | 6.1 | 2,798.88 |
| Utah | 144,000 | 556.48 | 5.1 | 2,799.46 |
| Vermont | 41,000 | 342.98 | 7.9 | 2,705.09 |
| Virginia | 510,000 | 399.29 | 7.2 | 2,861.83 |
| Washington | 351,000 | 545.94 | 5.6 | 3,061.91 |
| West Virginia | 193,000 | 399.27 | 6.3 | 2,519.69 |
| Wisconsin | 639,000 | 391.61 | 7.5 | 2,973.61 |
| Wyoming | 68,000 | 366.79 | 6.5 | 2,356.83 |
| Puerto Rico and U.S. Territories | 74,000 | — | — | — |
| Countrywide | $57,338,000 ** | $460.19 | 7.1 | $3,244.74 |
| Previous Year Totals | $53,581,000 ** | $411.10 | 7.3 | $2,995.38 |

*Most recent data available.

**Includes $26.982 billion for 1984 and $21.129 billion for 1983 in Administrative Service Agreement benefit payments not allocated by state.

Source: Health Insurance Association of America

# 7. Laws Affecting Motorists

## Automobile Financial Responsibility and Compulsory Laws

Most states have laws, commonly known as financial responsibility laws, under which a person involved in an automobile accident may be required to furnish proof of financial responsibility (usually done in the form of automobile liability insurance) up to certain minimum dollar limits. The provinces of Canada have similar laws. Mexico has no financial responsibility law as such, but requires an auto liability insurance policy written with a Mexican company.

Thirty-five states and the District of Columbia have laws requiring registered car owners to have liability insurance or, in some cases, some other approved form of security. These "compulsory" auto insurance laws are in effect in Alaska, Arizona, California, Colorado, Connecticut, Delaware, the District of Columbia, Georgia, Hawaii, Idaho, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, West Virginia and Wyoming. Florida requires its car owners to have first-party "personal injury protection" insurance.

Every state has either a financial responsibility law or a "compulsory" law. Many have both kinds of statutes. Even where ownership of automobile liability insurance is not compulsory, the existence of the financial responsibility laws, along with the ever-present threat of a financially crippling judgment in the event of an accident, has come to make the possession of automobile liability insurance a virtual necessity for most motorists.

Nevertheless, there are many motorists who are considered doubtful risks or whose poor driving records label them as obviously bad insurance risks. In all states, there are procedures through which such persons are able to obtain coverage. For additional information about these procedures, see "The Automobile Shared Market," page 42.

# Automobile Financial Responsibility/Compulsory Limits

| State | Liability Limits* |
|---|---|
| Alabama | 20/40/10 |
| Alaska | 50/100/25 |
| Arizona | 15/30/10 |
| Arkansas | 25/50/15 |
| California | 15/30/5 |
| Colorado | 25/50/15 |
| Connecticut | 20/40/10 |
| Delaware | 15/30/10 |
| District of Columbia | 25/50/10 |
| Florida | 10/20/5 |
| Georgia | 15/30/10 |
| Hawaii | 25/unlimited/10 |
| Idaho | 25/50/15 |
| Illinois | 15/30/10 |
| Indiana | 25/50/10 |
| Iowa | 20/40/15 |
| Kansas | 25/50/10 |
| Kentucky | 10/20/5 |
| Louisiana | 10/20/10 |
| Maine | 20/40/10 |
| Maryland | 20/40/10 |
| Massachusetts | 10/20/5 |
| Michigan | 20/40/10 |
| Minnesota | 30/60/10 |
| Mississippi | 10/20/5 |
| Missouri | 25/50/10 |
| Montana | 25/50/5 |
| Nebraska | 25/50/25 |
| Nevada | 15/30/10 |
| New Hampshire | 25/50/25 |
| New Jersey | 15/30/5 |
| New Mexico | 25/50/10 |
| New York | 10/20/5[1] |
| North Carolina | 25/50/10 |
| North Dakota | 25/50/25 |
| Ohio | 12.5/25/7.5 |
| Oklahoma | 10/20/10 |
| Oregon | 25/50/25 |
| Pennsylvania | 15/30/5 |
| Rhode Island | 25/50/10 |
| South Carolina | 15/30/5 |
| South Dakota | 25/50/25 |
| Tennessee | 20/40/10[2] |
| Texas | 20/40/15 |
| Utah | 20/40/10 |
| Vermont | 20/40/10 |
| Virginia | 25/50/10 |
| Washington | 25/50/10 |
| West Virginia | 20/40/10 |
| Wisconsin | 25/50/10 |
| Wyoming | 25/50/20 |
| **CANADA** | |
| Alberta | $200,000 inclusive** |
| British Columbia | $200,000 inclusive** |
| Manitoba | $200,000 inclusive** |
| New Brunswick | $200,000 inclusive** |
| Newfoundland | $200,000 inclusive** |
| Northwest Territories | $50,000[3] inclusive** |
| Nova Scotia | $200,000 inclusive** |
| Ontario | $200,000 inclusive** |
| Prince Edward Island | $200,000 inclusive** |
| Quebec | $50,000 property damage[4] |
| Saskatchewan | $200,000 inclusive** |
| Yukon | $200,000 inclusive** |

*The first two figures refer to bodily injury liability limits and the third figure to property damage liability. For example, 10/20/5 means coverage up to $20,000 for all persons injured in an accident, subject to a limit of $10,000 for one individual; and $5,000 coverage for property damage.

**"Inclusive" means that the amount of liability insurance shown is available to settle either bodily injury or property damage claims—or both. When a claim involving both bodily injury and property damage reaches the "inclusive" limit, payment for property damage is limited to $20,000 in British Columbia, Manitoba, New Brunswick and Newfoundland, and to $10,000 in the other territories having "inclusive" limits, except for the Northwest Territories, where the limit is $5,000 until Jan. 1, 1988, when it becomes $10,000.

[1]50/100 in cases of wrongful death.

[2]25/50/10 as of Jan. 1, 1990.

[3]$200,000 as of Jan. 1, 1988.

[4]Quebec has a complete no-fault system for bodily injury claims, scaled down for non-residents in proportion to their degree of fault. The $50,000 limit relates to liability for damage to property in Quebec and to liability for bodily injury and property damage outside Quebec.

Sources: American Insurance Association; Insurance Bureau of Canada

## "No-Fault" Automobile Insurance

A major change in the biggest single line of property and casualty insurance—automobile insurance—has been in the making since the early 1970s. Widespread dissatisfaction with the operation of the traditional tort liability system, under which recoveries by accident victims of their losses are often dependent upon proving who caused the accident, has led to the adoption of "first-party" laws by about half the states and consideration of similar action by most of the other states.

A number of states have enacted laws mandating the purchase of auto liability insurance and a form of "no-fault" insurance which permits accident victims to recover such financial losses as medical and hospital expenses and lost income from their own insurance companies. Most of those states also have some restrictions on the right to sue. Several other state laws make optional the purchase of "first party" coverages up to specified minimum limits.

Among the states which have adopted forms of "no-fault" auto insurance, the major variations involve: dollar limits on medical and hospital expenses (unlimited in some states), funeral and burial expenses, lost income and the amount to be paid a person hired to perform essential services that an injured non-income producer is unable to perform; also, conditions governing the right to sue which usually include death, serious injury and a point at which medical expenses reach a stipulated amount.

Jurisdictions which have forms of "first-party" auto insurance and the dates on which the laws originally became effective, follow.

Compulsory first-party/liability insurance; some restrictions on lawsuits

| | | |
|---|---|---|
| Colorado, April 1, 1974 | Kentucky, July 1, 1975 | New York, February 1, 1974 |
| Connecticut, January 1, 1973 | Massachusetts, January 1, 1971 | North Dakota, January 1, 1976 |
| Georgia, March 1, 1975 | Michigan, October 1, 1973 | Utah, January 1, 1974 |
| Hawaii, September 1, 1974 | Minnesota, January 1, 1975 | |
| Kansas, January 1, 1974 | New Jersey, January 1, 1973 | |

Compulsory first-party, optional liability insurance; some restrictions on lawsuits

| | |
|---|---|
| Florida, January 1, 1972 | Puerto Rico, 1970 |

Compulsory first-party and liability insurance; no restrictions on lawsuits

| | | |
|---|---|---|
| Delaware, January 1, 1972 | Oregon, January 1, 1972 | Pennsylvania, October 1, 1984* |
| Maryland, January 1, 1973 | | |

Compulsory liability, optional first-party insurance; no restrictions on lawsuits

| | | |
|---|---|---|
| Arkansas, July 20, 1987 | South Carolina, October 1, 1974 | Texas, June 17, 1981 |
| District of Columbia, June 3, 1986** | | |

Insurance not compulsory; first-party benefits optional, no restrictions on lawsuits

| | | |
|---|---|---|
| New Hampshire, October 1, 1971 | South Dakota, January 1, 1972 | Virginia, January 1, 1972 |

*Pennsylvania's "no-fault" law, which originally included some restrictions on lawsuits, has been in effect since July 1975.
**The District's original "no-fault" law, which included some restrictions on lawsuits, had been in effect since Oct. 1, 1983.

Source: American Insurance Association

# 8. General Information

## The Regulation of Insurance

The business of property and casualty insurance is subject to two powerful forms of control: a high intensity of competition among insurance companies and strict regulation state by state.

The degree of competition is reflected by the fact that in a field which is served by almost 3,600 companies, no single company or group has more than 10 percent of the property/casualty insurance market. The 10 largest organizations combined had 38.3 percent of the market in 1986.

As a business which is inherently linked with the public interest, property and casualty insurance is closely regulated by designated authorities in every state and in other jurisdictions. Also, certain insurer activities are subject to regulation by federal agencies.

In essence, the basic charge to which the state regulatory authorities are committed is to assure the continued solvency of each company in order that it might be ready to discharge its obligation to policyholders, to ascertain that customers are neither overcharged nor unfairly discriminated against, and to regulate the business in a way that will encourage the companies to make essential insurance protection as readily available to the public as practicable.

The procedures for reviewing and effectuating property and casualty rates include, in many states, the requirement that rates be approved in advance by the regulator. In a number of other states, rate changes generally may be made without prior approval. In those states, rates are subject to the forces of competition among insurers and to subsequent review by the regulator to assure that they are not inadequate, excessive or unfairly discriminatory.

Greater reliance on price competition is the objective of a model rating law adopted in December 1980 by the National Association of Insurance Commissioners, the organization of state regulators. With some variations, the NAIC followed recommendations of an advisory committee of insurance buyers, consumer representatives and insurance people, which had been charged with studying the merits of competitive pricing. The committee pointed to "properly structured" price competition as "the most effective way to assure the availability of property/casualty insurance at costs that are fair, reasonable and not excessive."

## The State Insurance Commissioners

**Alabama:** John S. Greeno, Commissioner of Insurance, 135 South Union St., Montgomery, Ala. 36130-3401. Tel. 205-269-3550.

**Alaska:** John L. George, Director of Insurance, P.O. Box "D", Juneau, Alaska 99811. Tel. 907-465-2515.

**American Samoa:** Afa Roberts, Insurance Commissioner, Office of the Governor, Pago Pago, American Samoa 96797. Tel. 684-633-4116.

**Arizona:** Vern Pierson, Director of Insurance, 801 E. Jefferson, Phoenix, Ariz. 85034. Tel. 602-255-5400.

**Arkansas:** Robert M. Eubanks III, Insurance Commissioner, 400 University Tower Building, 12th and University Streets, Little Rock, Ark. 72204. Tel. 501-371-1325.

**California:** Roxani Gillespie, Commissioner of Insurance, 100 Van Ness Ave., San Francisco, Calif. 94102. Tel. 415-557-3245; 800-233-9045.

**Colorado:** John Kezer, Commissioner of Insurance, 303 W. Colfax Ave., Fifth Floor, Denver, Colo. 80204. Tel. 303-866-3201.

**Connecticut:** Peter W. Gillies, Insurance Commissioner, 165 Capitol Ave., State Office Bldg., Room 425, Hartford, Conn. 06106. Tel. 203-566-5275.

**Delaware:** David N. Levinson, Insurance Commissioner, 841 Silver Lake Blvd., Dover, Del. 19901. Tel. 302-736-4251; 800-282-8611.

**District of Columbia:** Margurite C. Stokes, Superintendent of Insurance, 614 H St., N.W., North Potomac Bldg., Suite 512, Washington, D.C. 20001. Tel. 202-727-7419.

**Florida:** William D. Gunter, Insurance Commissioner, State Capitol, Plaza Level 11, Tallahassee, Fla. 32399-0300. Tel. 904-488-3440; 800-342-2762.

**Georgia:** Warren D. Evans, Insurance Commissioner, 2 Martin L. King, Jr. Dr., Floyd Memorial Building, 704 West Tower, Atlanta, Ga. 30334. Tel. 404-656-2056.

**Guam:** Carr Bettis, Acting Insurance Commissioner, P.O. Box 2796, Agana, Guam 96910. Tel. 011-671-477-1040.

**Hawaii:** Robin Campaniano, Insurance Commissioner, P.O. Box 3614, Honolulu, Hawaii 96811. Tel. 808-548-5450; 800-548-5450.

**Idaho:** Anthony Fagiano, Acting Director of Insurance, 500 S. 10th St., Boise, Idaho 83720. Tel. 208-334-2250.

**Illinois:** John E. Washburn, Director of Insurance, 320 W. Washington St., 4th Floor, Springfield, Ill. 62767. Tel. 217-782-4515.

**Indiana:** Harry E. Eakin, Commissioner of Insurance, 311 West Washington St., Suite 300, Indianapolis, Ind. 46204-2787. Tel. 317-232-2386; 800-622-4461.

**Iowa:** William D. Hager, Commissioner of Insurance, Lucas State Office Building, 6th Floor, Des Moines, Iowa, 50319. Tel. 515-281-5705.

**Kansas:** Fletcher Bell, Commissioner of Insurance, 420 South West Ninth St., Topeka, Kan. 66612. Tel. 913-296-7801; 800-432-2484.

**Kentucky:** Gilbert McCarty, Insurance Commissioner, 229 West Main St., P.O. Box 517, Frankfort, Ky. 40602. Tel. 502-564-3630.

**Louisiana:** Sherman A. Bernard, Commissioner of Insurance, 950 North 5th St., Baton Rouge, La. 70801. Tel. 504-342-5328.

**Maine:** Joseph A. Edwards, Superintendent of Insurance, State House, Station 34, Augusta, Maine 04333. Tel. 207-289-3101.

**Maryland:** Edward J. Muhl, Insurance Commissioner, 501 St. Paul Pl., 7th Floor South, Baltimore, Md. 21202. Tel. 301-333-6300; 800-492-6116.

**Massachusetts:** Roger Singer, Commissioner of Insurance, 100 Cambridge St., Boston, Mass. 02202. Tel. 617-727-3333.

**Michigan:** Herman W. Coleman, Insurance Commissioner, 611 West Ottawa St., 2nd floor, Lansing, Mich. 48933. Tel. 517-373-9273.

**Minnesota:** Michael A. Hatch, Commissioner of Commerce, 500 Metro Square Building, 5th Floor, St. Paul, Minn. 55101. Tel. 612-296-6907; 800-652-9747.

**Mississippi:** George Dale, Commissioner of Insurance, 1804 Walter Sillers Building, P.O. Box 79, Jackson, Miss. 39205. Tel. 601-359-3569.

**Missouri:** Lewis R. Crist, Director of Insurance, 301 W. High St. 6 North, P.O. Box 690, Jefferson City, Mo. 65102-0690. Tel. 314-751-2451.

**Montana:** Andrea Bennett, Commissioner of Insurance, 126 North Sanders, Mitchell Building, P.O. Box 4009, Helena, Mont. 59601. Tel. 406-444-2040; 800-332-6148

**Nebraska:** William H. McCartney, Director of Insurance, 904 O St., Lincoln, Neb. 68508. Tel. 402-471-2201.

**Nevada:** David A. Gates, Commissioner of Insurance, Nye Building, 201 South Fall St., Carson City, Nev. 89701. Tel. 702-885-4270; 800-992-0900.

**New Hampshire:** Louis E. Bergeron, Insurance Commissioner, 169 Manchester St., Concord, N.H. 03301. Tel. 603-271-2261; 800-852-3416.

**New Jersey:** Kenneth D. Merin, Commissioner of Insurance, 201 East State St., Trenton, N.J. 08625. Tel. 609-292-5363.

**New Mexico:** Vicente B. Jasso, Superintendent of Insurance, PERA Building, P.O. Drawer 1269, Sante Fe, N.M. 87504-1269. Tel. 505-827-4535.

**New York:** James P. Corcoran, Superintendent of Insurance, 160 W. Broadway, New York, N.Y. 10013. Tel. 212-602-0429; 800-522-4370.

**North Carolina:** James E. Long, Commissioner of Insurance, Dobbs Building, P.O. Box 26387, Raleigh, N.C. 27611. Tel. 919-733-7343; 800-662-7777.

**North Dakota:** Earl R. Pomeroy, Commissioner of Insurance, Capitol Building, Fifth Floor, Bismarck, N.D. 58505. Tel. 701-224-2440; 800-247-0560.

**Ohio:** George Fabe, Director of Insurance, 2100 Stella Court, Columbus, Ohio 43266-0566. Tel. 614-481-5735; 800-282-4658.

**Oklahoma:** Gerald Grimes, Insurance Commissioner, 1901 N. Walnut St., Oklahoma City, Okla. 73105. Tel. 405-521-2828.

**Oregon:** Theodore R. Kulongoski, Director of Insurance and Finance, 158 12th St., N.E., Salem, Ore. 97310. Tel. 503-378-4271.

**Pennsylvania:** Constance B. Foster, Insurance Commissioner, Strawberry Square, 13th Floor, Harrisburg, Pa. 17120. Tel. 717-787-5173.

**Puerto Rico:** Juan Antonio Garcia, Commissioner of Insurance, Fernandez Juncos Station, P.O. Box 8330, Santurce, P.R. 00910. Tel. 809-722-8686.

**Rhode Island:** Mark A. Pfeiffer, Insurance Commissioner, 100 North Main St., Providence, R.I. 02903. Tel. 401-277-2246.

**South Carolina:** John G. Richards V, Chief Insurance Commissioner, 1612 Marion St., P.O. Box 100105, Columbia, S.C. 29202-3105. Tel. 803-737-6160.

**South Dakota:** Mary Jane Cleary, Director of Insurance, Insurance Building, 910 E. Sioux Ave., Pierre, S.D. 57501. Tel. 605-773-3563.

**Tennessee:** Elaine A. McReynolds, Commissioner of Insurance, 1808 West End Ave., 14th Floor, Nashville, Tenn. 37219-5318. Tel. 615-741-2241; 800-342-4029.

**Texas:** Doyce R. Lee, Commissioner of Insurance, 1110 San Jacinto Blvd., Austin, Tex. 78701-1998. Tel. 512-463-6464.

**Utah:** Harold C. Yancey, Commissioner of Insurance, P.O. Box 45803, Salt Lake City, Utah 84145. Tel. 801-530-6400.

**Vermont:** Gretchen Babcock, Commissioner of Insurance, State Office Building, 120 State St., Montpelier, Vt. 05602. Tel. 802-828-3301.

**Virgin Islands:** Derek M. Hodge, Commissioner of Insurance, P.O. Box 450, Charlotte Amalie, St. Thomas, Virgin Islands 00801. Tel. 809-774-2991.

**Virginia:** Steven T. Foster, Commissioner of Insurance, 700 Jefferson Building, P.O. Box 1157, Richmond, Va. 23209. Tel. 804-786-3741; 800-552-7945.

**Washington:** Richard G. Marquardt, Insurance Commissioner, Insurance Building, AQ21, Olympia, Wash. 98504. Tel. 206-753-7301; 800-562-6900.

**West Virginia:** Fred E. Wright, Insurance Commissioner, 2100 Washington St., East, Charleston, W.Va. 25305. Tel. 304-348-3394; 800-642-9004.

**Wisconsin:** Robert D. Haase, Commissioner of Insurance, 123 W. Washington Ave., Madison, Wis. 53702. Tel. 608-266-0103.

**Wyoming:** Gordon W. Taylor, Insurance Commissioner, Herschler Building, 122 W. 25th St., Cheyenne, Wyo. 82002. Tel. 307-777-7401.

## Definitions

**Insurance:** A system under which individuals, businesses and other organizations or entities, in exchange for payment of a sum of money (a premium), are guaranteed compensation for losses resulting from certain perils under specified conditions.

**Property Insurance:** Insurance providing financial protection against the loss of, or damage to, real and personal property caused by such perils as fire, theft, windstorm, hail, explosion, riot, aircraft, motor vehicles, vandalism, malicious mischief, riot and civil commotion, and smoke.

**Casualty Insurance:** Insurance concerned primarily with the insured's legal liability for injuries to others or for damage to other persons' property; also encompasses such forms of insurance as plate glass, burglary, robbery and workers' compensation.

**Liability Insurance:** Insurance covering the policyholder's legal liability resulting from injuries to other persons or damage to their property.

**Life Insurance:** Insurance providing for payment of a specified amount on the insured's death, either to his or her estate or to a designated beneficiary; or in the case of an endowment policy, to the policyholder at a specified date.

**Accident and Health Insurance:** A type of coverage that pays benefits, sometimes including reimbursement for loss of income, in case of sickness, accidental injury or accidental death.

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**Actual Cash Value:** In many insurance policies, the amount awarded for physical damage losses; commonly defined as replacement cost less depreciation.

**Agent:** The *independent agent* is an independent business person who usually represents two or more insurance companies in a sales and service capacity and who is paid on a commission basis. The *exclusive agent* represents only one company, usually on a commission basis. The *direct writer* is the salaried or commissioned employee of a single company.

**Allied Lines:** A term for forms of insurance allied with property insurance, covering such perils as sprinkler leakage, water damage and earthquake.

**Arson:** The willful and malicious burning of, or attempt to burn, any structure or other property, often with criminal or fraudulent intent.

**Assets:** As applicable to insurance, all funds, property, goods, securities, rights of action or resources of any kind owned by an insurance company, less such items as are declared nonadmissable for accounting purposes by state laws, including deferred or overdue premiums.

**Automobile Insurance Plan:** One of several types of "shared market" mechanisms used to make automobile insurance available to persons who are unable to obtain such insurance in the regular market.

**Automobile Liability Insurance:** Protection for the insured against financial loss because of legal liability for car-related injuries to others or damage to their property.

**Automobile Physical Damage Insurance:** Coverage to pay for damage to or loss of policyholder's automobile resulting from collision, fire, theft, or other perils.

**Automobile Reinsurance Facility:** One of several types of "shared market" mechanisms used to make automobile insurance available to persons who are unable to obtain such insurance in the regular market.

**Automobile Shared Market:** A program in which all automobile insurers in each state and the District of Columbia participate to make coverage available to car owners who are unable to obtain auto insurance in the regular market. Except in Maryland, which operates a state-funded mechanism whose losses are subsidized by private insurers, each state uses one of three systems (an automobile insurance plan, a joint underwriting association or a reinsurance facility) to guarantee the availability of automobile insurance.

**Aviation Insurance:** Insurance pertaining to aircraft, including coverage of aircraft or their contents, the owner's liability or accident insurance on the passengers.

**Boiler and Machinery Insurance:** Coverage for loss arising out of the operation of pressure, mechanical and electrical equipment. It covers loss of the boiler and machinery itself, damage to other property, and business interruption losses.

**Broker:** A marketing specialist who represents buyers of property and liability insurance and who deals with either agents or companies in arranging for the coverage required by the customer.

**Burglary:** Breaking and entering into another person's property with felonious intent.

**Burglary and Theft Insurance:** Coverage against property losses due to burglary, robbery or larceny.

**Business Interruption Insurance:** Protection for a business owner against losses resulting from a temporary shutdown because of fire or other insured peril. The insurance provides reimbursement for lost net profits and necessary continuing expenses.

**Catastrophe:** In insurance, a term applied to an incident or series of related incidents causing insured property losses totaling more than $5 million.

**Claim:** A demand to recover under an insurance policy for a loss covered by that policy.

**Coinsurance:** A provision in an insurance policy under which the insured agrees to carry a certain amount of insurance expressed as a percentage of the value of the property. It provides for the full payment, up to the amount of the policy, of all losses if the insurance carried is at least equal to the specified percentage. If the insured fails to carry the necessary amount of insurance, he or she assumes a proportionate share of the loss.

**Collision Insurance:** An automobile insurance coverage against damage to the policyholder's vehicle caused by collision with another car or object or by upset.

**Combined Ratio:** Basically, a measure of the relationship between dollars paid out in claims and expenses and dollars taken in in premiums; more specifically, the sum of the ratio of losses incurred to premiums earned and the ratio of commissions and expenses incurred to premiums written.

**Commercial Lines:** Insurance for businesses, organizations, institutions, governmental agencies or other commercial establishments.

**Commercial Multiple Peril Policy:** A package type of insurance that includes a wide range of essential coverages for the commercial establishment.

**Commissioner:** A state officer for administering the state's insurance laws and regulations. In some states, the regulator bears the title of director or superintendent of insurance.

**Comprehensive Personal Liability Insurance:** Protection for an insured against loss arising out of legal liability to pay money for damage or injury to others for which the insured is responsible. Does not include automobile liability or business operations.

**Compulsory Insurance:** Any form of insurance which is required by law.

**Coverage:** The scope of protection provided under a contract of insurance; any of several risks covered by a policy.

**Credit Insurance:** A guarantee to manufacturers, wholesalers and service organizations that they will be paid for goods shipped or services rendered. Applies to that part of working capital which is represented by accounts receivable.

**Crop-Hail Insurance:** Protection against damage to growing crops as a result of hail or certain other named perils.

**Deductible:** An amount which a policyholder agrees to pay, per claim or per accident, toward the total amount of an insured loss. Insurance is written on this basis at reduced rates.

**Dividend:** (1) An amount returned to a policyholder by an insurance company out of its earnings. (2) In capital stock companies, a share of profits distributed to stockholders.

**Earned Premium:** The portion of a premium which is the property of an insurance company, based on the expired portion of the policy period.

**Earthquake:** A trembling or shaking of the earth, often resulting in severe damage.

**Economic Loss:** The estimated total cost, both insured and uninsured, of mishaps (such as motor vehicle accidents, work accidents and fires). Includes such factors as property damage; medical, hospital and legal costs; funeral expenses; wage loss, and insurance administrative costs.

**Embezzlement:** Fraudulent use or taking of another's property or money which has been entrusted to one's care.

**Extended Coverage Insurance:** Protection for the insured against property damage caused by windstorm, hail, smoke, explosion, riot, riot attending a strike, civil commotion, vehicle and aircraft. This is provided in conjunction with the fire insurance policy and the various "package" policies.

**FAIR Plan:** A facility, operating under a government-insurance industry cooperative program, to make fire insurance and other forms of property insurance readily available to persons who have difficulty obtaining such coverage.

**Farmowners-Ranchowners Policy:** A package policy for a farm or a ranch, providing property and liability coverages against both personal and business losses.

**Federal Crime Insurance:** Insurance against burglary, larceny and robbery losses offered by the federal government where the Federal Insurance Administration has determined that an insurance availability problem exists.

**Fidelity Bond:** A form of protection which reimburses an employer for losses caused by dishonest or fraudulent acts of employees.

**Financial Responsibility Law:** A state law under which a person involved in an automobile accident may be required to furnish security up to certain minimum dollar limits.

**Fire Insurance:** Coverage for losses caused by fire and lightning, plus resultant damage caused by smoke and water.

**Flood Insurance:** Coverage against loss resulting from the flood peril.

**General Liability Insurance:** Coverage that pertains, for the most part, to claims arising out of the insured's liability for injuries or damage caused by ownership of property, manufacturing operations, contracting operations, sale or distribution of products, and the operation of elevators and the like, as well as professional services.

**Glass Insurance:** Protection for loss of or damage to glass and its appurtenances.

**Group Insurance:** Any insurance plan under which a number of persons and their dependents are insured under a single policy, issued to their employer or to an association with which they are affiliated.

**Guaranty Fund:** A fund, derived from assessments against solvent insurance companies, to absorb losses of claimants against insolvent companies.

**Health Insurance:** Insurance against financial losses resulting from sickness or accidental bodily injury.

**Homeowners Policy:** A package type of insurance providing home owners with a broad range of property and liability coverages.

**Hurricane:** A tropical storm with a wind velocity of 75 or more miles an hour.

**Inland Marine Insurance:** A broad form of insurance, generally covering articles that may be transported from one place to another as well as bridges, tunnels and other instrumentalities of transportation and communication. It includes goods in transit (generally excepting trans-ocean) as well as numerous "floater" policies such as those covering personal effects, personal property, jewelry, furs, fine arts and others.

**Insurance Company:** An organization chartered to operate as an insurer.

**Insured:** Person or organization covered by an insurance policy, including the "named insured" and any other parties for whom protection is provided under the policy terms.

**Investment Income:** The portion of a company's income which is derived from its investments, including interest and dividends on stocks and bonds.

**Joint Underwriting Association:** One of several types of "shared market" mechanisms used to make automobile insurance available to persons who are unable to obtain such insurance in the regular market. JUAs also have been created in some states to help alleviate availability problems in the fields of medical malpractice and commercial insurance.

**Larceny-Theft:** The unlawful taking, carrying, leading or riding away of another person's property.

**Liability:** Any legally enforceable obligation.

**Liability Limits:** The stipulated sum or sums beyond which an insurance company is not liable to protect the insured.

**Loss:** The basis on which an insurance claim is submitted and/or paid.

**Malpractice Insurance:** Coverage for a professional practitioner, such as a doctor or a lawyer, against liability claims resulting from alleged malpractice in the performance of the insured's services.

**Marine Insurance:** A form of insurance primarily concerned with instruments of transportation and communication, and with goods in transit. See also Inland Marine Insurance and Ocean Marine Insurance.

**Medical Payments Insurance:** A coverage, available in various liability insurance policies, in which the insurer agrees to reimburse the insured and others, without regard for the insured's liability, for medical or funeral expenses incurred as the result of bodily injury or death by accident under specified conditions.

**Net Underwriting Profit or Loss:** Statutory underwriting profit less (or loss plus) dividends to policyholders.

**No-fault Automobile Insurance:** A form of insurance by which a person's financial losses resulting from an automobile accident, such as medical and hospital expenses and loss of income, are paid by his or her own insurer regardless of who was at fault.

**Ocean Marine Insurance:** Coverage for sea-going vessels, including liabilities connected with them, and their cargoes.

**Package Policy:** A single insurance policy that includes several coverages.

**Peril:** The cause of a loss insured against in a policy.

**Personal Lines:** Those types of insurance, such as auto or home insurance, for individuals or families rather than for businesses or organizations.

**Policy:** A contract of insurance.

**Policyholder:** A person who pays a premium to an insurance company in exchange for the insurance protection provided by a policy of insurance.

**Policyholder's Surplus:** Sum left after liabilities are deducted from assets. Sums such as paid-in capital and special voluntary reserves are also included in this term. This surplus is an additional financial protection to policyholders in the event a company suffers unexpected or catastrophic losses. In effect, it is the financial base that permits a company to sell insurance.

**Pool:** An organization of insurers or reinsurers through which particular types of risk are underwritten with premiums, losses and expenses shared in agreed-upon amounts.

**Premium:** The sum paid for an insurance policy. *Net premiums written* represent premium income retained by insurance companies, direct or through reinsurance, less payments made for business reinsured. *Direct written premiums* are the amounts actually paid by policyholders.

**Premium Tax:** A tax, imposed by each state, on gross income of insurers doing business in a state.

**Product Liability Insurance:** Protection against financial loss arising out of the legal liability incurred by a manufacturer, merchant or distributor because of injury or damage resulting from the use of a covered product.

**Rate:** The pricing factor upon which the insurance buyer's premium is based.

**Regulation:** Supervision of business practices by a governmental entity.

**Reinsurance:** Assumption by one insurance company of all or part of a risk undertaken by another insurance company.

**Reserve:** (1) An amount representing actual or potential liabilities kept by an insurer to cover obligations to policyholders. (2) An amount allocated for a special purpose. Note that a reserve is usually a liability and not an extra fund. On occasion a reserve may be an asset, such as a reserve for taxes not yet due.

**Risk:** The chance of loss. Also used to refer to the insured or to property covered by a policy.

**Robbery:** The taking of property from a person by force or by threat of violence.

**State Fund:** A fund set up by a state government to provide insurance. Some statutes permit, others exclude, competition by private insurers.

**Statutory Underwriting Profit or Loss:** Premiums earned less losses and expenses.

**Surety Bond:** An agreement providing for monetary compensation in the event of a failure to perform specified acts within a stated period. The surety company, for example, becomes responsible for fulfillment of a contract if the contractor defaults.

**Surplus Lines:** (1) A risk or a part of a risk for which there is no normal insurance market available. (2) Insurance written by non-admitted insurance companies.

**Tornado:** A whirling wind, accompanied by a funnel-shaped cloud, very violent and destructive in a narrow path, often for many miles over the land.

**Tort:** A wrongful act, resulting in injury or damage, on which a civil action may be based. Does not apply to a breach of contract.

**Umbrella Liability:** Covers losses in excess of amounts covered by other liability insurance policies; also protects the insured in many situations not covered by the usual liability policies.

**Underwriting:** The process of selecting risks for insurance and determining in what amounts and on what terms the insurance company will accept the risk.

**Underwriting Profit or Loss:** The amount of money which an insurance company gains or loses as a result of its underwriting operations. A net gain or loss on underwriting operations represents a company's statutory underwriting profit less (or loss plus) any amount it may pay to its policyholders in the form of dividends.

**Unearned Premium:** The portion of a premium that a company has collected but has yet to earn because the policy still has unexpired time to run.

**Uninsured Motorist Protection:** A form of insurance which covers the policyholder and family members if injured by a hit-and-run motorist or a driver who carries no liability insurance, assuming the other driver is at fault.

**Workers' Compensation Insurance:** A method of providing for the cost of medical care and weekly payments to injured employees or to dependents of those killed in industry, regardless of blame.

## Insurance and Service Organizations

The following organizations are supported by insurance companies or have activities closely related to insurance. National and state organizations which subscribe to the services of the Insurance Information Institute are identified by an asterisk(*).

***ACORD.** Joseph F. Quinn, president, One North Broadway, White Plains, N.Y. 10601. Tel. 914-682-0800. An industry-sponsored institute serving as the focal point for improving the processing of insurance transactions through the insurance agency system.

**Alliance of American Insurers.** Franklin W. Nutter, president, 1501 Woodfield Rd., Suite 400 West, Schaumburg, Ill. 60195-4980. Tel. 312-490-8500. Trade association to facilitate cooperation among fire and casualty insurance companies in matters of concern to them and their policyholders.

**All-Industry Research Advisory Council.** Donald W. Segraves, executive director, 1200 Harger Rd., Suite 222, Oakbrook, Ill. 60521. Tel. 312-920-1177. Provides the public and the insurance industry with timely research information relevant to public policy issues affecting risk and insurance.

**American Academy of Actuaries.** Steven G. Kellison, executive director, 1720 I St., N.W., 7th Floor, Washington, D.C. 20006. Tel. 202-223-8196. Professional association for actuaries. Issues standards of conduct and provides government liaison and advisory opinions.

**American Association of Insurance Services.** Paul A. Baiocchi, president and chief executive officer, 1035 S. York Rd., Bensenville, Ill. 60106. Tel. 312-595-3225. Rating, statistical and advisory organization for personal and commercial lines of insurance with membership composed principally of small and medium size companies.

**American Association of Managing General Agents.** Randy Dyer, executive vice president, 1001 Connecticut Ave., N.W., Suite 800, Washington, D.C. 20005. Tel. 202-223-0388. Managing general agents of insurers.

**American Council of Life Insurance.** Richard S. Schweiker, president, 1001 Pennsylvania Ave., N.W., Suite 500, Washington, D.C. 20004. Tel. 202-624-2000. Trade association responsible for the public relations, government, legislative and research aspects of the life insurance business.

***American Institute of Marine Underwriters.** Ward L. Mauck, president, 14 Wall St., New York, N.Y. 10005. Tel. 212-233-0550. Provides information of interest to marine underwriters and promotes their interests.

**American Institute for Property and Liability Underwriters, Inc.**, Dr. Norman A. Baglini, CPCU, CLU, president, 720 Providence Rd., Malvern, Pa. 19355-0770. Tel. 215-644-2100. Developed the Chartered Property Casualty Underwriter (CPCU) professional designation program and administers national CPCU examinations.

**American Insurance Association.** Robert E. Vagley, president, 1025 Connecticut Ave., N.W., Suite 415, Washington, D.C. 20036. Tel. 202-293-3010. Trade and service organization of the property and casualty insurance industry; provides a forum for the discussion of problems; provides safety, promotional and legislative services.

**American Insurance Services Group, Inc.**, Lawrence M. Zippin, president, 85 John St., New York, N.Y. 10038. Tel. 212-669-0400. Wholly owned subsidiary of the American Insurance Association, administers five industry service organizations, the Index System, Property Insurance Loss Register, Premium Audit Advisory Service, Property Claim Services and Engineering & Safety Service.

**American Land Title Association.** Michael Goodin, executive vice president, 1828 L St., N.W., Suite 705, Washington, D.C. 20036. Tel. 202-296-3671. Trade organization for title insurers, abstractors and agents. Performs statistical research and lobbying services.

***American Nuclear Insurers.** Burt C. Proom, president, The Exchange, Suite 245, 270 Farmington Ave., Farmington, Conn. 06032. Tel. 203-677-7305. A nonprofit unincorporated association through which liability and property insurance protection is provided against hazards arising out of nuclear reactor installations and their operations.

**American Prepaid Legal Services Institute.** Alec M. Schwartz, executive director, 750 North Lake Shore Drive, Chicago, Ill. 60611. Tel. 312-988-5751. National membership orgnization to provide information and technical assistance to lawyers, insurance companies, administrators, marketers and consumers regarding group and prepaid legal service plans.

***Arbitration Forums.** Bernard L. Hines Jr., president, Talleyrand I, 200 White Plains Rd., Tarrytown, N.Y. 10591-0066. Tel. 914-332-4770. Industry-supported nonprofit organization to arbitrate inter-company disputes.

***Association of Fire and Casualty Companies in Texas.** Kevin Uzzle, AFACT, executive manager, c/o Employers Casualty Co., Box 2759, Dallas, Texas 75221. Tel. 214-760-6100. Represents domestic Texas property and liability insurance companies in seeking to broaden consumer knowledge of insurance and in supporting legislation to improve the insurance business.

***Automobile Insurance Plans Service Office.** John J. Corbley, president, 302 Central Ave., Johnston, R.I. 02919. Tel. 401-946-2310. Develops and files rates and provides other services for automobile insurance plans.

**Casualty Actuarial Society**, Phillip N. Ben-Zvi, president, One Penn Plaza, New York, N.Y. 10119. Tel. 212-560-1018(9). Promotes actuarial and statistical science in all insurance fields except life.

**College of Insurance**, Linda H. Lamel, president and chief executive, 1 Insurance Plaza, 101 Murray St., New York, N.Y. 10007. Tel. 212-962-4111. Insurance industry-supported college providing a curriculum leading to bachelor's and master's degrees in business administration and a bachelor of science degree in actuarial science.

**Conference of Insurance Legislators**, Charles Davis, executive director, P.O. Box 217, Brookfield, Wis. 53005. Tel. 414-782-6669. Organization of chairmen of state legislative committees concerned with insurance-related matters.

**Crop-Hail Insurance Actuarial Association**, Lloyd W. Lindstrom, manager, 209 W. Jackson Blvd., Chicago, Ill. 60606. Tel. 312-922-7722. Rating and research organization and statistical agent for crop-hail insurance and rain insurance on public events, business ventures, and private proceedings.

**Crop Insurance Research Bureau**, Henry A. Butler, president, 3707 Woodview Trace, Box 68700, Indianapolis, Ind. 46268. Tel. 317-875-5250. Crop insurance trade organization.

**Defense Research Institute, Inc.**, Louis L. Potter, executive director, 750 North Lake Shore Drive, Suite 5000, Chicago, Ill. 60611. Tel. 312-944-0575. Service organization to improve the administration of justice and improve the skills of defense lawyers.

**Federal Insurance Administration**, Harold T. Duryee, Executive Deputy Administrator, 500 C St., S.W., Washington, D.C. 20472. Tel. 202-646-2781. Administers the federal flood insurance and crime insurance programs.

***Fire Prevention and Engineering Bureau of Texas**, Richard A. Comstock, manager, 1900 Pacific Building, Suite 720, Dallas, Tex. 75201. Tel. 214-969-0330. Performs risk inspections, prepares underwriting reports, inspects fire defenses of Texas cities for members and subscribers.

**Foreign Credit Insurance Association**, John Hanson, president, 40 Rector St., 11th Floor, New York, N.Y. 10016. Tel. 212-306-5000. Offers credit insurance facilities for U.S. exporters through cooperation of the insurance business and the Export-Import Bank of Washington.

**Health Insurance Association of America**, James L. Moorefield, president, 1750 K St., N.W., Suite 600, Washington, D.C. 20006. Tel. 202-331-1336. Central source of health insurance information for the public on behalf of insurance companies; monitors public attitudes and reactions to health insurance developments.

**Health Insurance Association of America, Public Relations Division**, Kenneth W. White, vice president, 1850 K St., N.W., Washington, D.C. 20006. Tel. 202-862-4124.

**Highway Loss Data Institute**, Brian O'Neill, president, Watergate Six Hundred, Suite 300, Washington, D.C. 20037. Tel. 202-333-6200. Nonprofit organization to gather, process and provide the public with insurance data concerned with human and economic losses resulting from highway accidents.

**ISO Commercial Risk Services, Inc.**, B. Joseph Shelley, president, 2 Sylvan Way, Parsippany, N.J. 07054. Tel. 201-267-0359. A wholly-owned subsidiary of Insurance Services Office, Inc., providing individual property survey and rating information to the property/casualty industry.

**ISO Telecommunications, Inc.** Dominick R. Cortellessa, president, 160 Water St., New York, N.Y. 10038. Tel. 212-487-5000. A wholly-owned subsidiary of Insurance Services Office, Inc., established to telecommunicate ISO products and services to ISO-participating insurers.

**Independent Insurance Agents of America, Inc.**, Jeffrey M. Yates, executive vice president, 100 Church St., New York, N.Y. 10007. Tel. 212-285-4250. Trade association of independent insurance agents.

***Inland Marine Underwriters Association**, Ward L. Mauck, president, 14 Wall St., New York, N.Y. 10005. Tel. 212-233-7958. Forum for discussion of problems of common concern to inland marine insurers.

**Institute for Civil Justice**, Gustave H. Shubert, director, 1700 Main St., P.O. Box 2138, Santa Monica, Calif. 90406-2138. Tel. 213-393-0411. Organization formed within the Rand Corporation to perform independent, objective research and analysis concerning the civil justice system.

**Insurance Accounting and Systems Association**, Elaine Powell, secretary-treasurer, P.O. Box 8857, Durham, N.C. 27707. Tel. 919-683-2356. An international organization to promote the study, research and development of modern techniques in insurance accounting and statistics.

***Insurance Committee for Arson Control**, Rick L. Hammond, executive director, 1501 Woodfield Rd., Suite 400 W., Schaumburg, Ill. 60173-4980. Tel. 312-490-8670. All-industry coalition; serves as a catalyst for insurers' anti-arson efforts and a liaison with government agencies and other groups devoted to arson control.

***Insurance Crime Prevention Institute**, Wendall C. Harness, director, 15 Franklin St., Westport, Conn. 06880. Tel. 203-226-6347. Serves property and casualty insurers in the investigation of fraudulent insurance claims, other than accident, health and workers' compensation.

***Insurance Fund Foundation**, Gordon C. Hamilton, president, 1218 Third Ave., Seattle, Wash. 98101. Tel. 206-624-3927. Provides educational programs and materials to teachers, students and the general public.

**Insurance Information Institute**, Mechlin D. Moore, president, 110 William St., New York, N.Y. 10038. Tel. 212-669-9200. An educational, fact-finding and communications organization for all lines of insurance except life and health insurance. It is supported by some 300 insurance companies and provides services on a subscribership basis to many major industry organizations.

**Insurance Institute for Highway Safety**, Brian O'Neill, president, Watergate Six Hundred, Suite 300, Washington, D.C. 20037. Tel. 202-333-0770. Traffic safety organization supported by automobile insurers.

**Insurance Institute of America, Inc.**, Dr. Norman A. Baglini, CPCU, CLU, president, 720 Providence Rd., Malvern, Pa. 19355-0770. Tel. 215-644-2100. Provides educational opportunities in property and liability insurance and related fields; provides standards for measurement of achievement through the administration of national examinations.

**Insurance Library Association of Boston**, Maurice H. Saval, president, 156 State St., Boston, Mass. 02109. Tel. 617-227-2087. A nonprofit, independent membership library serving the research and education interests of all branches of the insurance industry.

***Insurance Services Office, Inc.**, Daniel J. McNamara, president, 175 Water St., New York, N.Y. 10038. Tel. 212-487-5000. Provides a wide range of advisory, rating, actuarial, statistical and other services relating to property and casualty insurance, including the development of policy forms, rates, premiums and related services for monoline and multiple line coverages. Offers services, including research studies, to insurers or other persons or organizations.

**Insurance Value Added Network Services**, Robert Barham, president, One North Broadway, White Plains, N.Y. 10601. Tel. 914-684-0343. An industry-sponsored organization offering a value added data communications network linking agencies, companies and providers of data to the insurance industry.

***International Insurance Council**, Gordon J. Cloney, president, 1625 K St., N.W., Suite 1075, Washington, D.C. 20006. Tel. 202-331-7221. Speaks for and coordinates the international noncommercial activities of U.S. insurance and reinsurance companies.

***Kansas Association of Property and Casualty Insurance Companies**, L.M. Cornish, secretary-treasurer, P.O. Box 1280, Topeka, Kan. 66601. Tel. 913-232-0545. Represents 17 domestic insurers in Kansas.

**Kansas Insurance Education Foundation**, Glen Davis, chairman of the board of trustees, P.O. Box 1280, Topeka, Kan. 66601. Tel. 913-232-0545. Nonprofit corporation devoted to promotion and encouragement of insurance education in Kansas. Develops teaching aids, supports insurance education at the university level and prepares and distributes consumer information.

**LOMA (Life Office Management Association)**, Lynn Merritt, president, 5770 Powers Ferry Rd., Atlanta, Ga. 30327. Tel. 404-951-1770. Worldwide association of insurance companies specializing in research and education, with a primary focus on home office management.

***Metropolitan Chicago Loss Bureau**, Robert Kissane, president, 343 S. Dearborn, Suite 1400, Chicago, Ill. 60604. Tel. 312-322-2500. Assists insurance companies with property claims adju.:ment and arson and fraud claims investigation.

**National Association of Casualty and Surety Agents**, Bruce T. Wallace, executive vice president, 6931 Arlington Rd., Suite 308, Bethesda, Md. 20814. Tel. 202-986-4166. A trade organization dedicated to safeguarding the public interest, preserving a competitive market, and working with others for the good of the insurance business and the public.

**National Association of Casualty and Surety Executives**, Lawrence M. Zippin, executive secretary, 85 John St., New York, N.Y. 10038. Tel. 212-669-0400. Organization to provide insurance companies and agents with a forum for discussion of industry problems relating to the public's interest.

**National Association of Health Underwriters**, William F. Flood, executive vice president, 1700 Pennsylvania Ave., N.W., Suite 595, Washington, D.C. 20006. Tel. 202-638-0455. Professional association of persons engaged in the sale and service of disability income and hospitalization and major medical health insurance.

**National Association of Independent Insurers**, Lowell R. Beck, president, 2600 River Rd., Des Plaines, Ill. 60018. Tel. 312-297-7800. Trade association of fire, casualty and surety insurers.

**National Association of Insurance Brokers, Inc.**, David F. Lambert III, executive director, 1401 New York Ave., N.W., Suite 720, Washington, D.C. 20005. Tel. 202-628-6700. Trade association of commercial insurance brokers.

**National Association of Insurance Commissioners**, Karl W. Koch, executive president, 1125 Grand Ave., Kansas City, Mo. 64106. Tel. 816-842-3600. Organization of state insurance commissioners to promote uniformity in state supervision of insurance matters, and to recommend legislation in the various state legislatures.

***National Association of Insurance Women**, Susan M. Caldwell, executive vice president, 1847 E. 15th St., P.O. Box 4410, Tulsa, Okla. 74104. Tel. 918-744-5195. Fosters educational programs for members. Promotes public safety and service programs.

**National Association of Mutual Insurance Companies,** Harold H. Walters, president, 3707 Woodview Trace, P.O. Box 68700, Indianapolis, Ind. 46268. Tel. 317-875-5250. Trade association of property and casualty mutual insurance companies.

**National Association of Professional Surplus Lines Offices, Ltd.,** J. Dale Bohm, executive director, P.O. Box 1507, Roswell, Ga. 30077. Tel. 404-998-9075. Professional association of wholesale brokers, excess and surplus lines companies, affiliates and supporting members.

**National Association of Surety Bond Producers,** Bruce T. Wallace, executive vice president, 5454 Wisconsin Ave., Suite 1625, Chevy Chase, Md. 20815. Tel. 301-986-4166. Trade association of surety bond producers.

**National Automobile Theft Bureau,** Paul W. Gilliland, president, 10330 S. Roberts Rd. 3A, Palos Hills, Ill. 60465. Tel. 312-430-2430. Conducts stolen vehicle recovery and auto theft prevention activities.

**National Committee on Insurance Guaranty Funds,** Charles Zarzechi, executive secretary, 2600 River Rd., Des Plaines, Ill. 60018. Tel. 312-297-7800. Advisory organization to the state guaranty fund boards; gathers and disseminates information regarding insurer insolvencies.

***National Committee on Property Insurance,** Eugene L. Lecomte, president, 10 Winthrop Sq., Boston, Mass. 02110. Tel. 617-423-4620. Provides advice and assistance to insurers writing property coverages in distressed or residual insurance markets.

***National Council on Compensation Insurance,** Kevin M. Ryan, president, One Penn Plaza, New York, N.Y. 10119. Tel. 212-560-1000. Develops and administers rating plans and systems for workers' compensation insurance.

**National Crop Insurance Association,** George A. Bender, vice president, 8400 W. 110th St., Suite 400, Shawnee Mission, Kan. 66210. Tel. 913-451-3656. National trade association of insurance companies writing hail insurance, fire insurance and insurance against other weather perils to growing crops.

**National Fire Protection Association,** Robert W. Grant, president, Batterymarch Park, Quincy, Mass. 02269. Tel. 617-770-3000. Independent, nonprofit source of information on fire protection, prevention and suppression; develops and publishes consensus fire safety standards; sponsors national Learn Not to Burn campaign.

**National Safety Council,** T. C. Gilchrest, president, 444 N. Michigan Ave., Chicago, Ill. 60611. Tel. 312-527-4800. Provides national support and leadership in the field of safety; publishes safety materials of all kinds; conducts a public information and publicity program in support of safety.

***New York Board of Fire Underwriters,** Alexander Pirnie, president, 85 John [illegible] New York, N.Y. 10038. Tel. 212-227-3700. A 120-year-old organization which supervises the Fire Patrol of New York City, conducts fire safety and electrical inspections, helps develop fire safety standards, and assists in the adjustment of fire insurance claims.

***New York Cooperative Insurance Association,** Kurt J. English, CPCU, CLU, president, 401 S. Main St., North Syracuse, N.Y. 13212. Tel. 315-458-7702. A trade association representing 75 mutual property/casualty insurance companies providing insurance for homes, businesses and farmers.

***New York Insurance Exchange,** Joseph Fahys, president and chief executive officer, 111 Fulton St., New York, N.Y. 10038. Tel. 212-618-9200. A marketplace established to write reinsurance of all kinds and direct insurance on risks located outside the United States, as well as on domestic risks which have been rejected in the New York Free Trade Zone.

***New York Property Insurance Underwriting Association,** Richard G. Brueckner, president, 100 William St., New York, N.Y. 10038. Tel. 212-208-9700. Provides basic fire insurance for New York State residents not able to obtain the coverage through the voluntary market.

**Overseas Private Investment Corporation,** Craig A. Nalen, president, 1129 20th St., N.W., Washington, D.C. 20527. Tel. 202-653-2920. Self-sustaining U.S. government agency providing political risk insurance and finance services for U.S. investment in developing countries.

**Pollution Liability Insurance Association,** Thomas Knowlton, president, 1333 Butterfield Rd., Suite 100, Downers Grove, Ill. 60515. Tel. 312-969-5300. Organization to promote the availability of pollution and hazardous waste insurance coverages for businesses.

**Professional Insurance Agents,** Donald K. Gardiner, executive vice president, 400 N. Washington St., Alexandria, Va. 22314. Tel. 703-836-9340. Trade association of independent insurance agents.

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# Index


Accident and health insurance, 16, 39
Accidents:
  cost of, 9, 75, 92
  fatalities from, 75, 78, 79, 82, 83, 89
  types of: aircraft, 99
    automobile (motor vehicle), 51, 75, 77-79, 82, 83
    home, 82
    work-related, 51, 82, 92, 93, 94
After-tax income, 6
Ages:
  drinking, by state, 80
  in arrests, 98
  of drivers in automobile accidents, 83
Aircraft accidents, 99
Aircraft insurance, 16, 39
Allied lines of insurance, 16, 26, 37
Alternative dispute resolution mechanisms, 56
Arbitration in dispute resolution, 56, 57
Arrests by age, 98
Arson, 64, 65, 96, 98
Asbestos:
  hazards of, 93
  insurance claims regarding, 93, 94, 95
  lawsuits involving, 9
Assets, insurance industry, 5, 6, 17-18, 23
Automobile accidents, 51, 75, 77-79, 82-83
Automobile crash parts, trends in cost of, 50
Automobile financial responsibility laws, 25, 103-104
Automobile insurance:
  collision, 86-87
  commercial, 16, 24, 25, 26, 36
  cost trends in, 9, 50
  liability, 16, 25, 36
    claim costs for, 78
    compulsory, 25, 103-104
  "no-fault," 105
  ownership of, 13
  personal injury claims, 88-89
  physical damage, 16, 26, 36
  private passenger, 16, 24, 25, 26, 36
Automobile insurance plans, 42
Automobile insurance shared market, 42-43, 103
Automobile repairs, trends in cost of, 50
Automobile theft, 9, 90-91, 96, 97, 98
Automobile seat belts, 75, 76
Automobiles:
  costs for repair, 50, 83-84, 85
  drivers of, in accidents, 77, 79, 83
    drunk, 79-81, 98
    legislation affecting, 79-81, 103-105
  insured in shared market, 42-43
  low speed crash tests of, 84-85

Beach and windstorm insurance plans, 44-45
Boiler and machinery insurance, 16, 32, 38
Bonds, surety and fidelity, 16, 31, 38
Burglary:
  arrests for, 98
  losses from, 9, 96
Burglary and theft insurance, 16, 31, 38
Business failure trends, 100

Catastrophes, losses from, 9, 70, 71
Civil disorders, losses from, 69
Civil justice system, 8, 55-61
  cost of, 8, 55
  proposals for reform, 55, 56, 57, 58
  tort reform provisions, 58-61
Claims, insurance:
  asbestos-related, 93, 95
  collision insurance, 86-87
  commercial insurance, 58
  medical malpractice insurance, 53-54
  personal injury, automobile, 88-89
  workers' compensation, 94, 95
Collision insurance claims, 86-87
Combined net income before taxes, 20, 21
Combined ratio, 7
Commercial insurance claims, 58
Commercial multiple peril insurance, 16, 24, 27, 37, 58
Compulsory automobile liability insurance, 25, 103-104
Construction, cost trends in, 49
Consumer Price Index, 49-50
Cost of living index, 49
Costs, factors affecting, 49-62
  (*See also specific entries, for example:* Automobiles, costs for repair)
Crash tests of automobiles, 84-85
Credit insurance, 39
Crime insurance, federal, 48
Crimes:
  arrests for, 98
  losses from, 9, 96
  (*See also specific entries, for example:* Arson; Theft)
Crop-hail insurance, 16, 28

Direct written premiums, 35-39
Drug abuse, arrests for, 98
Drunk driving, 79-81, 98

Earned premiums, 6, 7
Earthquake insurance, 39
Earthquakes, losses from, 72
Employment in insurance, 5, 12

Fair Access to Insurance Requirements (FAIR) Plans, 44-45
Farmowners multiple peril insurance, 16, 27, 28, 36
Fatalities:
  from accidents, 75, 77, 78, 79, 82-83, 92, 99
    aircraft, 99
    automobile, 75, 77, 78, 79, 82, 83
    home, 82
  from fires, 63-67
  from hurricanes, 73
  from tornadoes, 74
  work-related, 82, 92
Federal Crime Insurance Program, 48
Fidelity bonds, 16, 31, 38
Financial responsibility laws, 25, 103-104
Financial services, 9
Fire insurance and allied lines, 16, 26, 37
Fires:
  causes of, 64, 65
  fatalities from, 63, 67
  incendiary or suspicious, 64, 65, 96
  losses from, 9, 63-69
  structural, 66
"First-party" automobile insurance, 105
Flood insurance, 46, 47

General liability insurance, 16, 24, 29, 37, 95
Glass insurance, 16, 32, 39
Government insurance programs, 46-48
  crop insurance, 28
  Federal Crime Insurance, 48
  flood, 46, 47
  health, 101
  workers' compensation, state funds, 37
Government regulation of property/casualty insurance, 8, 106-108
Gross national product and insurance, 15
Guaranty funds, insurance, 41

Hail storms, insurance for, 28
Health care, costs of, 62, 101-102
Health hazards, workplace, 10
Health insurance, 39, 101-102
Home accidents, 82
Home ownership, 13, 49
Homeowners multiple peril insurance, 16, 24, 27, 36
Hospital rooms, trends in cost of, 50
Hospital semiprivate room rates, 62
Hospitalization benefits, 101-102
Household insurance, cost trends in, 49
  ownership of, 13
Housing costs indices, 49
Hurricanes, losses from, 70, 71, 73

Income:
  investment, 6, 19-21
  net, property/casualty insurers, 19-21, 22
Inland marine insurance, 16, 33, 38
Insolvency funds, 41
Insurance:
  amounts of, countries leading in, 14
  employment in, 12
  market comparisons, United States and Europe, 14-15
  overview of, 5
  ownership of, 13
  regulation of, 8, 106-108
  types of (*See specific entries*)
  world market for, 14-15
Insurance availability, 7, 48, 57
Insurance commissioners, state, 106-108
Insurance Information Institute, 119-121
Insurance organizations, 114-118
Insurance terms, definitions of, 109-113
Investment income, 6, 19-21
Investments, types of, 23

Joint underwriting associations (JUAs), 42
Jury trials, 56
Jury verdicts, 51, 53

Larceny-theft, 9, 96-98
Large-loss fires, 68-69
Lawsuits:
  civil, 55, 57
  compensation awards in, 55
  cost of, 51, 53, 55
  delays in, 55, 56
  growth of, 55
  personal injury, 51-52, 54, 56
  product liability, 51, 52
Legislation:
  affecting motorists, 79-81, 103-105
  financial services, 9
  health hazards, 10
  Federal Trade Commission, 10
  tort reform, 8, 55, 56, 57, 58, 60-61
  (*See also* Government insurance programs; Government regulation)
Liability, product, 51-52
Liability insurance:
  automobile (*See* Automobile insurance, liability)
  general, 16, 24, 29, 37, 95
Life insurance, worldwide, 14
Liquor liability insurance, 57

Losses:
by category, 63-102
crop insurance, 28

Maryland Automobile Insurance Fund, 42
McCarran-Ferguson Act, 10
Mediation in dispute resolution, 56
Medical care, cost trends in, 50
Medical malpractice, 7, 16, 29, 37, 51, 53-54, 57
insurance, 7, 16, 29, 37, 53-54
insurance claims, 53-54
insurance companies, doctor-owned, 53
lawsuits in, 51, 53
legislation governing lawsuits, 54
Men in automobile accidents, 77
Minority groups in insurance field, 12
Motor vehicles (*See* Automobiles; *entries beginning with the term:* Automobile)
Multiple-death fires, 67
Multiple peril insurance, 16, 24, 27-28, 37

Net income, property/casualty insurers, 6, 20, 21, 22
Net premiums written, 16, 24, 35
(*See also specific entries for individual lines of insurance*)
"No-fault automobile insurance, 105
Nuclear insurance, 10, 34

Occupational disease, 93-95
compensation for victims of, 93, 95
extent of, 95
losses from, 95
Ocean marine insurance, 16, 33, 38
Operating results, 6, 19-21

Personal injury claims, automobile, 88-89
Personal injury lawsuits, 51-52
Physicians' fees, cost trends in, 50
Policyholder dividends, 6, 19, 30
Policyholders' surplus, 6, 17-18, 23
Premium dollar, who pays, 24
Premium taxes by state, 40
Premiums:
accounting for, 18, 24
direct written, 35-39
earned, 6, 7
growth rate, 15
in world market, 14-15
net written, 16, 24, 35
per capita, 14-15
(*See also specific entries for individual lines of insurance*)
Price-Anderson Act, 10
Product liability:
hearings on, 10
lawsuits, 51-52
Profitability, aspects of, 22
Property, crimes against, 96-98
Property/casualty insurance:
companies by state, 11
employment in, 5, 12
government regulation of, 8, 106-108
purchases of, amounts of, 24
review of, 6-10
world market, 14-15
(*See also specific entries, for example:* Automobile insurance; Reinsurance facilities)
Property/casualty insurance companies by state, 11
Punitive damages, 8, 55, 56

Rates of return, annual, 6, 22
Regulation of insurance, 8, 106-108
Reinsurance facilities, 42
Renters' insurance, 13
Reserves, premium and loss, 23
Risk Retention Act, 10
Robberies:
arrests for, 98
losses from, 96

Seat belts, automobile, 75, 76
Service organizations, 114-118
Shared markets, 42-45
Speed limits, highway, 10
Statutory accounting, 7
Surety bonds, 16, 31, 38

Tax Reform Act of 1986, 7
Taxes:
and net income, 6, 20, 21, 22
premium, by state, 40
real estate, 62
Theft:
automobile, 90-91, 96, 97, 98
larceny, 96-98
Theft insurance, 16, 31, 38
Tornadoes, losses from, 70, 71, 74
Tort reform, 8, 54, 55, 58, 60-61
legislation, 8, 54, 60-61

Underwriting results, 6, 19, 21

Windstorm insurance plans, 44, 45
Women:
in automobile accidents, 77
in insurance field, 12
Work-related accidents, 51, 82, 92
Workers' compensation insurance, 16, 24, 30, 37, 93-95

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